FINANCIAL REPORTING STANDARDS AND TECHNIQUES THROUGH CASE ANALYSES

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ABSTRACT

ALEXANDRIA MARQUART: FINANCIAL REPORTING STANDARDS AND TECHNIQUES THROUGH CASE ANALYSES
(Under the direction of Victoria Dickinson)

During my time at the University of Mississippi, I joined The Sally McDonnell Barksdale Honors College (SMBHC) through the junior year entry program, while studying accountancy in The Patterson School of Accountancy. The opportunities provided by the SMBHC were endless, including the option of completing an alternate thesis. The alternate thesis truly changed the direction of my career and success in my accounting academic courses. On a bi-weekly basis for one academic year, I researched and analyzed twelve unique case studies to further my knowledge of accounting principles and standards. These cases helped me explore the unique challenges that arise throughout different clients in the work environment and showed me how to determine a reasonable solution for these issues. Every week without a case, I was granted the opportunity to build relationships with accounting firms and professionals throughout the world. Dr. Dickenson encouraged students to connect with the professionals and attend case competitions, while challenging our minds throughout the cases. This course, the Honors College, and Dr. Dickenson all allowed me to connect with firm employees and recruiters on a more specialized, one-on-one basis, and ultimately led me to an internship and future career at KPMG in the St. Louis, Missouri office. Throughout my internship, I was able to grasp many of concepts discussed as results of the following case studies. My performance and understanding led me to accept a full time job with KPMG and further my academic career at the Patterson School of Accountancy's Data and Analytics Master's Program.

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Case 1: Analysis Comparing Glenwood and Eads Heating, Inc.

Executive Summary

The financial statement comparisons between Glenwood Heating, Inc. and Eads Heating, Inc. will be useful for potential investors while evaluating each company. Investors will see faithful and reliable information to help them decide which company will use their money in the best way possible. Each heating company began operations at the beginning of 20X1, which leads their numbers to be similar in the beginning transactions. However, as the companies continue business, certain numbers and ratios prove that each company has its' own strengths and weaknesses.

Overall, Glenwood's financial reports show a greater net profit along with higher retained earnings for the first year of operations. Yet, Eads Heating, Inc. has greater cash flows and a smarter lease contract, both advantages for this startup company, meaning the company has a probable chance at being more successful in the future.

Presented in this document are the Multistep Income Statements, Statements of Retained Earnings, and Classified Balance Sheets for each company. Before the financial reports, a chart with key ratios will be shown along with a ratio analysis explaining the meaning of the ratios.

Analysis and Investment Decision

Looking at the ratios for each company, I believe Eads Heating, Inc. is the better investment in terms of long-term success. Investors must look at current financial reports, but keep in mind that future profits will benefit the company, investors, and shareholders most in the long run. Glenwood proves to be more profitable in the first year with higher a gross profit margin, return on equity (ROE), and earnings per share (EPS). However, Glenwood's low cash balance, lower liquidity, and possible fluctuating rent on equipment

leads me to the conclusion that Eads Heating, Inc. is the better company to invest in. Eads Heating, Inc. will maintain a more stable profit because of their larger cash balance (explained further on page 10) and lease agreement with set terms.

Table 1-1: Analysis of Financial Ratios

	Ratios			
Ratio	**Glenwood**		**Eads**	
		Liquidity Ratios		
Current Ratio	161,632 / 33,090	4.88	153,256 / 33,090	4.63
Acid Test Ratio	98,832 / 33,090	2.99	102,265 / 33,090	3.09
Accounts Receivable Turnover	398,500 / 98,406	4.05	389,500 / 94,430	4.22
Days to Collect Receivables	365 / 4.05	90.12	365 / 4.22	86.49
Inventory Turnover	177,000 / 62,800	2.82	188,800 / 51,000	3.7
Days to Sell Inventory	365 / 2.82	129.43	365 / 3.70	98.65
Operating Cycle	129.43 + 90.12	219.55	98.65 + 86.49	185.14
		Profitability Ratios		
Gross Profit Margin	221,500 / 398,500	55.58%	209,700 / 398,500	52.62%
Profit Margin	92,742 / 398,500	23.27%	70,515 / 398,500	17.70%
Return on Assets (ROA)	92,742 / 642,632	14.43%	70,515 / 703,765	10.02%
ROE	92,742 - 0 / 229,542	40.40%	70,515 - 0 / 207,315	34.01%
EPS	92,742 - 0 / 3,200	$28.98	70,515 - 0 / 3,200	$22.04
Debt Ratio	413,090 / 642,632	64.28%	496,450 / 703,765	70.54%
Times Interest Earned	151,306 / 27,650	5.47	129,030 / 35,010	3.69

Liquidity Ratio Analysis

Using ratios is a simpler way to compare the two companies. Looking at the current ratio above, Eads and Glenwood Heating have similar liquidity rates. Glenwood has a higher liquidity rate by .25, which is a positive attribute for Glenwood. However, Eads' acid-test ratio is greater by .10, meaning the company is more likely to pay off its current liabilities. Eads is also able to sell and replace its inventory more quickly than

Glenwood by approximately 30 days. An important factor for investors is Eads' ability to receive cash quicker and sell more inventory roughly a month in advance of Glenwood.

Profitability Ratio Analysis

Regarding the profitability ratios, investors see that Glenwood has a higher profit margin and that Eads has a higher debt ratio. However, investors need to keep in mind that Eads Heating, Inc. only has a higher debt ratio because they have higher total liabilities and total assets due to their leased equipment. Due to the fact that their equipment has set terms, Eads is still the smarter investing decision. Eads also uses the double-declining balance method for delivery equipment depreciation. This method depreciates most of the fixed asset during the first few years of its useful life, meaning the book value of the asset will decrease each year. As depreciation decreases, net income will begin to increase therefore making future profitability greater for Eads in the years to come.

Table 1-2: Glenwood Heaters, Inc. First-Year Transactions

Glenwood Heating, Inc. Transactions (A)											
	Assets						Liabilities			Equity	
	Cash	Accounts Receivable	Inventory	Land	Building	Equipment	Accounts Payable	Notes Payable	Interest Payable	Common Stock	Retained Earning
No. 1	$160,000									$160,000	
No. 2	400,000							$400,000			
No. 3	(420,000)			$70,000	$350,000						
No. 4	(80,000)					$80,000					
No. 5			$239,800				$239,800				
No. 6		$398,500									$398,500
No. 7	299,100	(299,100)									
No. 8	(213,360)						(213,360)				
No. 9	(41,000)							(20,000)			(21,000)
No. 10	(34,200)										(34,200)
No. 11	(23,200)										(23,200)
No. 12									$6,650		(6,650)
Balance	$47,340	$99,400	$239,800	$70,000	$350,000	$80,000	$26,440	$380,000	$6,650	$160,000	$313,450

Table 1-3: Eads Heaters, Inc. First-Year Transactions

Eads Heating, Inc. Transactions (A)											
	Assets						Liabilities			Equity	
	Cash	Accounts Receivable	Inventory	Land	Building	Equipment	Accounts Payable	Notes Payable	Interest Payable	Common Stock	Retained Earning
No. 1	$160,000									$160,000	
No. 2	400,000							$400,000			
No. 3	(420,000)			$70,000	$350,000						
No. 4	(80,000)					$80,000					
No. 5			$239,800				$239,800				
No. 6		$398,500									$398,500
No. 7	299,100	(299,100)									
No. 8	(213,360)						(213,360)				
No. 9	(41,000)							(20,000)			(21,000)
No. 10	(34,200)										(34,200)
No. 11	(23,200)										(23,200)
No. 12									$6,650		(6,650)
Balance	$47,340	$99,400	$239,800	$70,000	$350,000	$80,000	$26,440	$380,000	$6,650	$160,000	$313,450

First-Year Transaction Notes

Notice the two charts of first-year operation transactions are identical, except for the company name. These initial transactions will lead us to the starting balances in the financial statements.

Table 1-4: Glenwood Heaters, Inc. Multistep Income Statement

Glenwood

Income Statement

For the Year Ended December 31, 20X1

Sales		$398,500
Cost of Goods Sold		(177,000)
Gross Profit		221,500
Operating Expenses		
Rent Expense	$16,000	
Depreciated Expense - Building	10,000	
Depreciated Expense - Equipment	9,000	
Bad Debt Expense	994	
Other Operating Expenses	34,200	(70,194)
Income from Operations		151,306
Other Expenses and Losses		
Interest Expense		(27,650)
Income before Income Tax		123,656
Income Tax		(30,914)
Net Income for the Year		$92,742.00
Earnings per Share		$28.98

Multistep Income Statement Notes

Looking at each company's income statement (Eads' income statement below), take note that the companies began making different accounting decisions. For example, Glenwood's manager estimates 1 percent of ending accounts receivable will be uncollectable where Eads' manager estimates 5 percent of ending accounts receivable

will be uncollectable. This leads to a difference of $3,976 in the Bad Debt Expense account making Glenwood's income higher. Also, the earnings per share is very high for Glenwood, meaning the company is profitable, which is an advantage for investors and shareholders.

Table 1-5: Eads Heaters, Inc. Multistep Income Statement

Eads

Income Statement
For the Year Ended December 31, 20X1

Sales		$398,500
Cost of Goods Sold		(188,800)
Gross Profit		209,700
Operating Expenses		
Depreciated Expense - Building	$10,000	
Depreciated Expense - Equipment	20,000	
Depreciated Expense - Lease Equipment	11,500	
Bad Debt Expense	4,970	
Other Operating Expenses	34,200	(80,670)
Income from Operations		129,030
Other Expenses and Losses		
Interest Expense		(35,010)
Income before Income Tax		94,020
Income Tax		(23,505)
Net Income for the Year		$70,515.00
Earnings per Share		$22.04

Multistep Income Statement Notes

On another note, Eads' company manager decides to use the double-declining balance depreciation method for delivery equipment. This method causes Eads' depreciation expense to be $20,000, whereas Glenwood's manager stuck with the

straight-line method making Glenwood's depreciation on delivery equipment to be $11,000 cheaper, or $9,000. With this information, investors will see that Glenwood is more profitable than Eads by $22,227 in the first year of operations. However, the 8-year leased equipment purchased by Eads will be a future advantage as far as cash flows. It looks like Eads is far less profitable, but a main factor is because the leased equipment is on the company's books as if Eads Heating, Inc. purchased it themselves.

Table 1-6: Glenwood Heating, Inc. Statement of Retained Earnings

Glenwood Heating, Inc.

Retained Earnings Statement

For the Year Ended December 31, 20X1

Retained Earnings, January 1, as reported	$0
Add: Net Income	92,742
Less: Dividends	(23,200)
Retained Earnings, December 31	$69,542

Table 1-7: Eads Heating, Inc. Statement of Retained Earnings

Eads Heating, Inc.

Retained Earnings Statement

For the Year Ended December 31, 20X1

Retained Earnings, January 1, as reported	$0
Add: Net Income	70,515
Less: Dividends	(23,200)
Retained Earnings, December 31	$47,315

Statement of Retained Earnings Notes

The comparison between the two statements of retained earnings simply shows that the retained earnings for Glenwood Heating, Inc. is higher in alignment with net income. Many investors can look at these numbers and see that Glenwood is more profitable and therefore should choose to invest in Glenwood Heating, Inc.

Table 1-8: Glenwood Heating, Inc. Balance Sheet

Glenwood Heating, Inc.							
Classified Balance Sheet							
December 31, 20X1							
Assets				**Liabilities and Stockholders' Equity**			
Current Assets				Current Liabilities			
Cash		$426		Accounts Payable		$26,440	
Accounts Receivable	$99,400			Interest Payable		6,650	
Less: Allowance for Bad Debts	(994)	98,406		Total Current Liabilities			$33,090
Inventory		62,800		Long Term Liabilities			
Total Current Assets			$161,632	Notes Payable		380,000	
Property, Plant, and Equipment				Total Long Term Liabilities			380,000
Land		70,000		Total Liabilities			413,090
Building	350,000			Stockholders' Equity			
Less: Accumulated Depreciation - Building	(10,000)	340,000		Common Stock			
Equipment	80,000			Authorized, issued, and outstanding, 3,200 shares at $50 par value		160,000	
Less: Accumulated Depreciation - Equipment	(9,000)	71,000		Retained Earnings		69,542	
Total Property, Plant, and Equipment			$481,000	Total Stockholders' Equity			229,542
Total Assets			$642,632	Total Liabilities and Stockholders' Equity			$642,632

Table 1-9: Eads Heating, Inc. Balance Sheet

Eads Heating, Inc.							
Classified Balance Sheet							
December 31, 20X1							
Assets							
Current Assets				Current Liabilities			
Cash		$7,835		Accounts Payable		$26,440	
Accounts Receivable	$99,400			Interest Payable		6,650	
Less: Allowance for Bad Debts	(4,970)	94,430		Total Current Liabilities			$33,090
Inventory		51,000		Long Term Liabilities			
Total Current Assets			$153,265	Notes Payable		380,000	
Property, Plant, and Equipment				Lease Payable		83,360	
Land		70,000		Total Long Term Liabilities			463,360
Building	350,000			Total Liabilities			496,450
Less: Accumulated Depreciation Building	(10,000)	340,000		Stockholders' Equity			
Equipment	80,000			Common Stock			
Less: Accumulated Depreciation Equipment	(20,000)	60,000		Authorized, Issued, and Outstanding, 3,200 Shares at $50 par value		160,000	
Leased Equipment	92,000			Retained Earnings		47,315	
Less: Accumulated Depreciation Leased Equipment	(11,500)	80,500		Total Stockholders' Equity			207,315
Total Property, Plant, and Equipment			$550,500				
				Total Liabilities and Stockholders' Equity			$703,765
Total Assets			$703,765				

Balance Sheet Notes

As we look at the two balance sheets, notice that Eads Heating, Inc. has a higher total assets balance because of their leased equipment. Having large account balances in the Leased Equipment and Lease Payable accounts, the cash flows will be higher for Eads Heating, Inc. Referring to the acid test ratio, Eads' ratio is a little higher than Glenwood's ratio--meaning Eads has a better change at paying off their liabilities. This leads us to conclude that Eads company is able to pay their debt obligations while having a better safety margin. When looking at the cash balance, we see that Eads balance is much greater than Glenwood's cash balance. Investors should make note of this and recall that a startup company with little cash could potentially struggle making payments, especially because Glenwood's operating cycle is 34.41 days longer than Eads.

Transactions

The following tables show all of the transactions throughout the year to compute the year-end balances for each heating company. Notice transaction 4 where each company's management decided on different terms for the equipment. Glenwood chose to simply rent the equipment, whereas Eads chose to lease the equipment.

Table 1-10: Glenwood Heaters, Inc. End-of-Year Transactions

Glenwood Heaters, Inc. Transactions									
Transaction	Assets								
	Cash	Accounts Receivable	Allowance for Bad Debts	Inventory	Land	Building	Accumulated Depreciation Building	Equipment	Accumulated Depreciation Equipment
Balances Part A	$47,340	$99,400		$239,800	$70,000	$350,000		$80,000	
Part B (1) Bad Debts			($994)						
Part B (2) COGS				(177,000)					
Part B (3) Depreciation									
Building							$10,000		
Equipment									($9,000)
Part B (4) Equipment									
Rental Payment	(16,000)								
Part B (5) Income Tax									
Balances	$31,340	$99,400	($994)	$62,800	$70,000	$350,000	($10,000)	$80,000	($9,000)

Table 1-11: Glenwood Heaters, Inc. End-of-Year Transactions (Continued)

	Liabilities			Stockholders' Equity		
	Accounts Payable	Interest Payable	Note Payable	Lease Payable	Common Stock	Retained Earnings
Balances Part A	$26,440	$6,650	$380,000		$160,000	$313,450
Part B (1) Bad Debts						(4,970)
Part B (2) COGS						(188,800)
Part B (3) Depreciation						
Building						(10,000)
Equipment						(20,000)
Part B (4) Equipment						
Rental Payment				$83,360		(18,000)
Part B (5) Income Tax						(23,505)
Balances	$26,440.00	$6,650.00	$380,000.00	$83,360.00	$160,000.00	$48,175.00

Table 1-12: Eads Heaters, Inc. End-of-Year Transactions

Eads Heating, Inc. BT Transactions											
	Assets										
Transaction	Cash	Accounts Receivable	Allowance for Bad Debts	Inventory	Land	Building	Accumulated Depreciation Building	Equipment	Accumulated Depreciation Equipment	Leased Equipment	Accumulated Depreciation Leased Equipment
Balances Part A	$47,340	$99,400		$239,800	$70,000	$350,000		$80,000			
Part B (1) Bad Debts			($4,970)								
Part B (2) COGS				(188,800)							
Part B (3) Depreciation											
Building							($10,000)				
Equipment									($20,000)		
Part B (4) Equipment											
Rental Payment	(16,000)									$92,000	($11,500)
Part B (5) Income Tax											
Balances	$31,340.00	$99,400.00	($4,970.00)	$51,000.00	$70,000.00	$350,000.00	($10,000.00)	$80,000.00	($20,000.00)	$92,000.00	($11,500.00)

Table 1-13: Eads Heaters, Inc. End-of-Year Transactions

	Liabilities			Stockholders' Equity	
	Accounts Payable	Interest Payable	Note Payable	Common Stock	Retained Earnings
Balances Part A	$26,440	$6,650	$380,000	$160,000	$313,450
Part B (1) Bad Debts					(994)
Part B (2) COGS					(177,000)
Part B (3) Depreciation					
Building					(10,000)
Equipment					(9,000)
Part B (4) Equipment					
Rental Payment					(16,000)
Part B (5) Income Tax					(30,914)
Balances	$26,440	$6,650	$380,000	$160,000	$69,542

Case 2: Profitability and Earnings Persistence

Executive Summary

Throughout this case, "Molson Coors Brewing Company – Profitability and Earnings Persistence," I successfully explained the type of information classified income statements provide and achieved a better understanding of specific income statement items and how to account for them through "Other Expenses and Losses" and "Other Revenues and Gains" on the income statement. With a better understanding of these items, investors should be able to determine the reasoning behind reporting special items as an operating expense, to calculate the effective tax rate of a company, and to understand other disclosure information while evaluating a company's profitability. Specifically, this case provides financial statement users with decision-useful information that can be found in the financial statements notes. Although, Molson Coors should provide the maximum amount of information on the face of the financial statements rather than bury special items in the note disclosures.

Analysis

The Molson Coors Brewing Company case taught me about accounting for special items. I learned about reoccurring special items and how to account for them with "Other Expenses and Losses" and "Other Revenues and Gains" on the income statement. It was interesting to read the company's validation for listing the special items as operating expenses in their notes. In this case, I explained my opinion on the subject. I also learned how to explore and collect information from a company's notes during this case. Being emphasized in all of my classes, I was excited to navigate through notes and understand the importance reading the notes diligently.

1. What are the major classifications on an income statement?

The major classifications on an income statement are revenue, expenses, gains and losses. The sections on an income statement are operating, non-operating, income tax, discontinued operations, non-controlling interest, and earnings per share. When setting up a multi-step income statement, the order should follow:

- Sales
- Cost of Goods Sold
- Gross Profit
- Selling and Administrative Expenses
- Income from Operations
- Other Revenues and Gains
- Other Expenses and Losses
- Earning Before Tax
- Tax
- Net Income
- Earnings per Share / Diluted Earnings per Share (if necessary)

2. Explain why, under U.S. GAAP, companies are required to provide "classified" income statements.

Under U.S. GAAP, companies are required to provide "classified" income statements to assist investors and shareholders on evaluating each individual department, which sections are bringing in high profits and which ones are bringing in low profits. This information also helps readers estimate future cash flows.

3. In general, why might financial statement users be interested in a measure of persistent income?

Persistent income is the income or earnings that are consistent throughout the accounting periods of a company. Financial statement users are interested in persistent income to see how the departments are progressing over time. If departments are continuously bringing in revenue, readers are more likely to invest in the company.

4. Define comprehensive income and discuss how it differs from net income.

Comprehensive income is the change in equity (net assets) of an entity during a period from transactions, other events, and circumstances from non-owner sources. It includes all changes in equity during a period except those relating from investments by owners and distributions to owners. Comprehensive income has unrealized holding gains and losses and available for sale securities, which is not considered a part of net income.

Process and Analysis

1. The income statement reports "Sales" and "Net Sales." What is the difference? Why does Molson Coors report these two items separately?

Sales is the number of units sold multiplied by the selling price for each unit. This company does not include sales returns and allowances and sales discounts in their sales balance. That being said, net sales in this case scenario are sales less the excess taxes on sales. Alcohol and shipment tax are referred to as excess tax.

2. Consider the income statement item "Special items, net" and information in Notes 1 and 8.

i. In general, what types of items does Molson Coors include in this line item?

Special items are the charges incurred or benefits realized that are not indicative of the company's core operations. The special items included in Molson Coors Brewing Company are listed:

- infrequent or unusual items
- Impairment or asset abandonment-related losses
- Restructuring charges and other atypical employee-related cost
- Fees on termination of significant operating agreements and gains (losses) on disposal of investments

ii. Explain why the company reports these on a separate line item rather than including them with another expense item. Molson Coors classifies these special items as operating expenses. Do you concur with this classification? Explain.

The company reports these special item expenses on a separate line rather than including them with a different expense item because of persistent income, which is defined above. I disagree with the classification of Molson Coors special items as operating expenses because the special items are not directly associated with the production of goods or services.

3. Consider the income statement item "Other income (expense), net" and the information in Note 6. What is the distinction between "Other income (expense), net" which is classified as a nonoperating expense, and "Special items, net" which Molson Coors classifies as operating expense?

"Other income (expense), net" is classified as a non-operating expense because all of these expenses and losses are normally non-recurring expenses. In note 1, Molson

Coors reports their special items as operating expenses because they believe these items could be reoccurring in the future.

4. Refer to the statement of comprehensive income. What is the amount of comprehensive income in 2013? How does this amount compare to net income in 2013?

The amount of comprehensive income in 2013 is $765,400,000. The difference between net income and comprehensive income takes place due to the dirty surplus. Dirty surplus items are unrealized gains and losses that are listed on the statement of shareholders' equity rather than the income statement. The dirty surplus items are listed under "Other comprehensive income (loss), net of tax," which can be located on Molson Coors' comprehensive income statement.

5. Consider the information on income taxes, in Note 7. What is Molson Coors' effective tax rate in 2013?

Molson Coors' effective tax rate in 2013 is the income tax expense divided by the pre-tax income. This means $84,000,000 (tax expense) / $654,500,000 (pre-tax income) which equals 12.8%.

Case 3: Accounts Receivable

Executive Summary

With headquarters located in London, England, Pearson is an international company with businesses relating to education, business information, and consumer publishing. Pearson's direct operations provide learning materials, technology, assessments, and services to educational institutions, corporations and professional organizations, as well as teachers and students of all ages. Being an international company, Pearson plc accepts multiple currency exchange rates, which is shown throughout this case. Overall, the Pearson case explains in depth the various types of receivables, how to estimate allowances for doubtful accounts and sales returns and allowances, as well as how to account for the receivables through journal entries and T-accounts.

Analysis

In the Pearson plc—Accounts Receivable case, I broadened my knowledge of accounts receivable terminology, allowance usage, and journal entries by taking a closer look at hands on receivables. I found it interesting that accounting terminology varies across the world, such as the "allowance" term in the U.S. being the same as a "provision" in the U.K. The Pearson case also encouraged me to research more about foreign currency exchange rates. Finally, seeing the different movements on the provision for bad debt and doubtful accounts helped me infer what detailed information companies truly use to reach their end-of-year balances, rather than being given a simplified version from a textbook.

1. What is an account receivable? What other names does this asset go by?

A receivable is defined as a financial asset with claims against customers and others for money, goods, or services. However, an account receivable is a short-term asset obligation where a customer orally promises to pay for goods and services sold. Another, more general, name for an account receivable is a trade receivable. Trade receivables are defined as customers owing amounts to a business for the goods or services provided by that business. Trade receivables can be accounts or notes receivable.

2. How do accounts receivable differ from notes receivable?

Accounts receivable differ from notes receivable in a few ways. An account receivable reflects an oral promise, is a current asset, and is generally paid within a nonspecific due date period. A sale in which a customer pays with credit increases an account receivable, and typically does not collect interest revenue. For example, The University of Mississippi purchases a $250 textbook on account from Pearson. Pearson's account receivables will increase by $250 and their textbook inventory will decrease by $250. The University of Mississippi will then have an obligation to pay Pearson $250 in the next 30 to 60 days.

A note receivable is a written promise, can be current or noncurrent, and has a specific maturity date for the note plus interest accrued. Interest for notes receivable is usually collected periodically throughout the loan. For example, if Pearson lends $1,000 to a client with a written agreement that the client will pay the company back, plus a 6% semiannual interest rate, then Pearson records a $1,000 increase in notes receivable and will expect to earn $60 in interest revenue twice a year.

3. What is a contra account? What two contra accounts are associated with Pearson's trade receivables (see Note 22)? What types of activities are captured in each of these contra accounts? Describe factors that managers might consider when deciding how to estimate the balance in each of these contra accounts.

A contra account is an account that reduces an asset, liability, or owners' equity account on the balance sheet. Contra accounts can also contradict income statement accounts. For example, the sales return and allowances account, which is a contra account, reduces the sales account on the income statement. The two contra accounts for Pearson's trade receivables are allowance for sales returns and allowances and allowance for doubtful accounts, which is noted in footnote 22.

The first type of activity captured in the allowance for sales returns and allowances contra account is the estimated sales returns and allowances for the period. At the end of the period, you will find the actual amount of sales returns and allowances. The actual amount of sales returns and allowances decreases the amount of the balance in the allowance account.

Similar to the first type of activity captured above, the allowance for doubtful accounts, which is a contra accounts receivable account, estimates bad debts using a percentage of receivables. This estimate becomes the balance for this contra account. During the period, the actual write-off amounts, or the uncollectable amounts, decrease the balance in the allowance for doubtful accounts.

Some factors that managers might consider when deciding how to estimate the balance in these contra accounts is using previous year actual amounts of bad debts and

sales returns and allowances. Managers should also consider current economic conditions and how material their product or service is to their target market.

4. Two commonly used approaches for estimating uncollectible accounts receivable are the percentage-of-sales procedure and the aging-of-accounts procedure. Briefly describe these two approaches. What information do managers need to determine the activity and final account balance under each approach? Which two approaches do you think results in a more accurate estimate of net accounts receivable?

The percentage-of-sales procedure provides a reasonably accurate estimate of the receivables' realizable value, without identifying specific accounts. This method may be applied using one composite rate that reflects an estimate of the uncollectible receivables. Estimating bad debt expense with a focus on the income statement, the percentage-of-sales for example, is still used today; however, recent accounting rules state it is not appropriate. Although the percentage-of-sales method provides better matching of bad debt expense to sales, the balance in the allowance typically does not provide a faithful estimate of the net realizable value.

The aging-of-accounts procedure applies a different percentage based on past experience to the various age categories and identify which accounts require special attention. Age categories are based on the extent to which specific accounts are past due; categories range from "under 30 days" up to "over 120 days." That being said, the longer a receivable is outstanding, the higher the percentage estimate to be uncollectible. During calculation, this percentage uses historical loss rates.

Under the percentage-of-sales procedure, managers need to determine the total amount of credit sales and an estimated uncollectable percentage, which can be found by an analyst. After finding these numbers, multiply the two together and that number tells management the estimate of bad debt expense.

The aging-of-accounts procedure requires more information to calculate the estimated uncollectible accounts receivable. First, management needs to use accounts receivable information to determine how many customers have receivables outstanding and the total for each age category. Then, management will need to find an estimated uncollectible percentage and multiply the percentage by the total receivable amount from each age category. The number found is the required balance in the allowance account for the certain age categories. After each age category allowance balance is obtained, management will need to add the numbers together to discover the year-end balance of allowance for doubtful accounts.

As mentioned earlier, the percentage-of-sales procedure does not provide a representationally faithful estimate of net realizable value. Therefore, I believe the aging-of-accounts procedure will result in a more accurate estimate of net accounts receivable.

5. If Pearson anticipates that some accounts will be uncollectible, why did the company extend credit to those customers in the first place? Discuss the risks that managers must consider with respect to accounts receivable.

Although some accounts will be uncollectible, Pearson still extends credit to these customers because it is difficult to predetermine who will break their promises to pay before the sale is made. It is unlikely that Pearson would review each customer's credit

score for their goods and services, as some real estate or auto businesses do with large purchases. Pearson may strategize by hiring someone to observe the accounts receivable and to ensure that customers pay their uncollectible accounts on time, or just in general. Pearson may also look at previous financial statements to consider if a customer should be allowed to purchase with credit or not. Managers risk losing cash for the company by not closely watching accounts receivable and decreasing net income by selling goods or services to customers with uncollectible accounts. They also risk negatively effecting cash flows if sales revenue is increasing yet cash is decreasing.

6. Note 22 reports the balance in Pearson's provision for bad and doubtful debts (for trade receivables) and reports the account activity ("movements") during the year ended December 31, 2009. Note that Pearson refers to the trade receivables contra account as a "provision." Under U.S. GAAP, the receivables contra account is typically referred to as an "allowance" while the term provision is used to describe the current-period income statement charge for uncollectible accounts (also known as bad debt expense).

i. Use the information in Note 22 to complete a T-account that shows the activity in the provision for bad and doubtful account during the year. Explain, in your own words, the line items that reconcile the change in account during 2009.

Table 3-1: T-Account -- Provision for Bad and Doubtful Debts

Provision for Bad and Doubtful Debts (£)

	72,000,000
5,000,000	
	26,000,000
20,000,000	
	3,000,000
	£76,000,000

During 2009, the provisions for bad and doubtful debts account changes as line items affect the account. The beginning balance of £72,000,000 comes from the 2008 provision for bad and doubtful debts ending balance. The first transaction is for a gain on exchange differences of £5,000,000. To explain exchange differences, Pearson accepts payments in dollars ($) from the U.S., who experience a higher exchange rate than pounds (£). Once the company converts the dollars to pounds to match their other financial statements and sales, Pearson will record a gain on foreign exchange currencies. Next, the income statement movement transaction of £26,000,000 is to record the actual bad debt expenses that are increasing expenses on the income statement. The third transaction of £20,000,000 is for utilizing the estimated amount of bad debt provisions, or writing off the account receivable that is uncollectible. The final transaction of £3,000,000 is for acquisition through business combination, meaning Pearson acquired another business type or segment of a business and used the book value of that businesses' bad debts as well.

ii. Prepare the journal entries that Pearson recorded during 2009 to capture 1) bad and doubtful debts expense for 2009 (that is, the "income statement movements") and 2) the write-off of accounts receivable (that is, the amount "utilised") during 2009. For each account in your journal entries, note whether the account is a balance sheet or income statement account.

Note these transaction use pounds (£) for currency.

Table 3-2: Bad-Debt Journal Entries

	Account	Debit	Credit
Transaction 1	Bad Debt Expense (Income Statement)	20,000,000	
	Allowance for Doubtful Accounts (Balance Sheet)		20,000,000
Transaction 2	Allowance for Doubtful Accounts (Balance Sheet)	26,000,000	
	Accounts Receivable (Balance Sheet)		26,000,000

iii. Where in the income statement is the provision for bad and doubtful debts expense included?

In the income statement, the provision for bad and doubtful debts expense is typically included with operating expenses, specifically the selling and administrative expenses. However, the provision for bad and doubtful debts on a sale that is not within the company's primary selling activity, the expense could be recorded as a non-operating expense in other expenses and losses.

7. Note 22 reports that the balance in Pearson's provision for sales returns was £372,000,000 at December 31, 2009 and £354,000,000 at December 31, 2009. Under U.S. GAAP this contra account is typically referred to as an "allowance" and reflects the company's anticipated sales returns.

i. Complete a T-account that shows the activity in the provision for sales returns account during the year. Assume that Pearson estimated returns relating to 2009 Sales to be £425,000,000. In reconciling the change in the account, two types of journal entries are required, one to record the estimated sales returns for the period and one to record the amount of actual book returns.

The ending balance for 2008 was £372,000,000, which becomes the beginning balance for 2009. Pearson estimated that returns relating to 2009 Sales to be £425,000,000. Since we know the ending balance, we just add the two given numbers and subtract the current balance to find the actual amount of returns. On the next page, these steps are shown in the provisions for sales returns T-account.

Table 3-3: T-Account – Provision for Sales Returns

Provision for Sales Returns (£)

	372,000,000
	425,000,000
443,000,000	
	£354,000,000

ii. Prepare the journal entries that Pearson recorded during 2009 to capture, 1) the 2009 estimated sales returns and 2) the amount of actual book returns

during 2009. In your answer, note whether each account in the journal entries is a balance sheet or income statement account.

The amount of 2009 estimated sales returns will appear directly below sales revenue on the income statement. Sales returns will be subtracted from sales revenue to determine net sales for 2009.

Table 3-4: Sales Returns Journal Entries

	Account	Debit	Credit
Transaction 1	Sales Returns and Allowance (Balance Sheet)	425,000,000	
	Allowance for Sales Returns and Allowances (Balance Sheet)		425,000,000
Transaction 2	Allowance for Sales Returns and Allowances (Balance Sheet)	443,000,000	
	Accounts Receivable (Balance Sheet)		443,000,000

8. Create a T-account for total or *gross* trade receivables. Analyze the change in this T-account between December 31, 2009 and 2009. Assume that all sales in 2009 were on account. You may also assume that there were no changes to the account due to business combinations or foreign exchange rate changes. Prepare the journal entries to record the sales on account and accounts receivable collection activity in this account during the year.

The T-account showing all changes in the gross trade receivables between December 31, 2008 to 2009 is shown at the top of the next page. The beginning balance of £1,342,000,000 is the 2008 ending balance. The £5,642,000,000 is the total sales for the year, since all sales were made on credit. Next, the cash collections must be

computed. The cash collection is the difference between the previous year's ending accounts receivable balance and the current year balance plus total sales, which is £5,682,000 for Pearson plc. Then, as calculated earlier, the write-off amount of £20,000,000 is credited to the gross accounts receivable account. Lastly, the actual sale returns of £443,000,000 is credited to the account. After the T-chart transactions are complete, Pearson determines their Gross Accounts Receivable amount.

Table 3-5: T-Account – Trade Receivables, Gross

Gross Accounts Receivable (£)

1,342,000,000	
5,624,000,000	
	5,682,000,000
	20,000,000
	443,000,000
£821,000,000	

Table 3-6: Gross Trade Receivables Journal Entries

	Account	Debit	Credit
Transaction 1	Accounts Receivable	5,624,000,000	
	Sales Revenue		5,624,000,000
Transaction 2	Cash	5,682,000,000	
	Accounts Receivable		5,682,000,000

Case 4: Diluted Earnings Per Share (EPS)

Executive Summary

This case demonstrates the accomplishment a difficult task regarding financial accounting and reporting. A strenuous concept on this topic is diluted earnings per share (EPS). A financial calculation titled basic earnings per share is a much simpler formula, net income less preferred dividends divided by the weighted-average number of shares outstanding, and is always presented on the face of the income statement. However, diluted earnings per share remains far more complex. Diluted earnings per share includes the effect of all potentially dilutive common shares that were outstanding during the period. Generally, companies with complex capital structures will report both basic and dilutive EPS. Complex capital structures exist when a corporation has convertible securities, options, warrants, or other rights that once used could dilute EPS. I will show how to calculate basic and diluted EPS through problem 16-8 in the 16th edition of Intermediate Accounting.

Analysis

Throughout this case, I furthered my knowledge of diluted earnings per share. I realized when you use preferred stock dividends in the numerator and when you convert it to common shares to be used in the denominator. Diluted earnings per share is a key factor of the financial statements for investors to take into account for usual circumstances, such as a company needing to convert all securities for financial support.

Problem 16-8

Note: Diluted EPA is similar to computing basic EPS except diluted EPS includes the effects of all potentially dilutive common shares that were outstanding during the period. When diluted EPS is higher than basic EPS this is called antidilutive EPS. If this occurs, one should not record diluted EPS on the income statement.

EPS	=	Net Income – Preferred Dividends / Weighted-Average Number of Shares Outstanding	-	Impact of Convertibles	-	Impact of Options, Warrants, and Other Dilutive Securities
Basic Earnings Per Share						
Diluted Earnings Per Share						

Part A: Compute basic earnings per share. The basic EPS formula is shown above.

$$\text{Basic EPS} = \frac{\$1{,}200{,}000 - (4{,}000{,}000 \times .06)}{\$6{,}000{,}000 / 10} = \frac{960{,}000}{600{,}000} = \underline{\$1.60}$$

To explain in further detail, follow the provided steps:

1. Know the numerator is net income less preferred stock dividends divided by the weighted-average shares outstanding.
2. Net income of $1,200,000 is given in the problem. However, preferred dividends must be calculated. We know there are $6,000,000 in convertible, cumulative preferred stock and that the stock is 6% convertible to common

stock. Each share converts into 3 shares of common stock, although that is not necessary for part a of the problem.

3. To calculate preferred stock dividends, we multiply the four million by 6% to get 240,000 preferred dividends.
4. Add the numerator to get $960,000.
5. Next, know the denominator, or weighted-average shares outstanding is relating to common stock shares outstanding.
6. To calculate the number of common stock shares outstanding, take the common stock price of six million and divide it by the per share price of $10. This should equal $600,000 for the denominator.
7. Divide the numerator, $960,000, by the denominator of $600,000 to reach basic earnings per share of $1.60.

Part B: Compute the diluted earnings per share for 2018. The diluted EPS is shown above; however, diluted earnings per share can be vague. Take note that for this equation, the numerator will consist of net income plus the interest savings, which will be explained further in the steps below.

$$\text{Diluted EPS} = \frac{\$1{,}200{,}000 + \$84{,}000}{600{,}000 + 15{,}000 + 60{,}000 + 120{,}000} = \frac{\$1{,}284{,}000}{795{,}000} = \$1.62$$

The calculation is not as simple as it looks. The steps below further explain the problem:

1. First, note that because the preferred stock is convertible and cumulative, you would not take the preferred stock dividends into account. In this situation, diluted EPS assumes that all convertibles will be converted at the beginning of the period.

2. Take net income and add interest savings which will be 7 percent of $2,000,000. Then, multiply the number you get by .60 (1 less the tax rate) to account for tax.
3. To get the number of shares (15,000) you will need to use the formula by taking the market price (which is given to us as $25) less the option price (which is given to us at $20) and then divide by the market price again. Once you've reached this number, which should be .02, you multiply by the number of options (which is given to us at 75,000). This calculation should give you the number of shares at 15,000.
4. The 120,000 shares come from converting our preferred stock to common stock. Calculate this by taking $4,000,000 and dividing by 100. After you get that calculation, multiply by 3 to get 120,000. Multiplying by 3 shares shows that each convertible, cumulative preferred stock is converted into 3 shares of common stock.
5. To calculate the number of common stock shares outstanding, take the common stock price of six million and divide it by the per share price of $10. This will equal 600,000 shares added to the denominator.

Note: You will not report diluted EPS on the income statement because it is antidilutive.

Case 5: Property, Plant, and Equipment

Executive Summary

Being founded in 1932, Palfinger is a manufacturing company with headquarters located in Austria. This company manufactures hydraulic lifting, loading, and handling solutions worldwide. Palfinger primarily serves construction, transport, agriculture and forestry, recycling, and haulage industries. This large company offers various products for consumers, such as knuckle boom cranes, timber and recycling cranes, telescopic cranes and many other products. Palfinger prepares its financial statements in accordance with the IFRS. In this case, I calculated gains and losses and determined which depreciation methods best benefit the company. This case focuses on two main depreciation methods: straight-line depreciation and double-declining-balance depreciation.

Analysis

The Palfinger case reviewed my knowledge of property, plant, and equipment assets and depreciation methods. This case also helped further my knowledge of the depreciation methods as far as understanding what each depreciation method truly represents when applying it to a company. I learned about how to best calculate gains and losses when taking net present value and book value into consideration as well. Finally, I found it interesting to determine what a company's options are when it comes to deciding between a major renovation or to purchase a completely new asset. I provided different methods to

account for this information and sub-accounts, such as construction in progress, for users.

1. Based on the description of Palfinger, what sort of property and equipment do you think the company has?

Being a manufacturing company for lifting, loading, and handling solutions worldwide, Palfinger has a lot of property, plant, and equipment (PP&E). The company's PP&E can range from multiple types of cranes, forklifts, and electric pulleys to warehouses, wire rope, and company trucks.

2. The 2007 balance sheet shows property, plant, and equipment of €149,990. What does this number represent?

Palfinger's 2007 balance sheet shows property, plant, and equipment of €149,990. This number represents the net amount of their land, buildings, vehicles, various inventories, and portions of overhead the company owns. These items are usually fixed or long-term, tangible assets.

3. What types of equipment does Palfinger report in notes to the financial statements?

In the notes, Palfinger reports fixtures, fittings, and equipment for three to nine years under equipment. Fixtures, fittings, and equipment are used in valuing, selling, or liquidating a company or building. These types of equipment include movable furniture,

fixtures, or other equipment that have no permanent connection to the structure of a building or utilities. A few example items are desk chairs, tables, or computers.

4. In the notes, Palfinger reports "Prepayments and assets under construction." What does this subaccount represent? Why does this account have no accumulated depreciation? Explain the reclassification of €14,958 in this account during 2007.

In the notes, Palfinger reports "Prepayments and assets under construction." This sub-account represents the construction in progress, meaning it has no accumulated depreciation yet. The reason this sub-account has no depreciation is because the prepayments are not used or acquired yet, and the assets under construction are not complete yet. In accounting, an asset cannot depreciate until it is ready for intended use. The reclassification of €14,958 in this account during 2007 is because the prepayment or asset under construction became ready for use during 2007.

5. How does Palfinger depreciate its property and equipment? Does this policy seem reasonable? Explain the trade-offs management makes in choosing a depreciation policy.

Palfinger depreciates its property and equipment using the straight-line method over the estimated useful life of the relevant asset. This policy seems reasonable if there is an equal ware of the product throughout its lifespan. However, if the asset is noticeably depreciating in the first couple years and then subtly depreciates after that, it would be better to depreciate the asset using a different method such as, declining balance or double-declining balance. The depreciation methods will vary on the type of company

and how frequently management requires the PP&E asset(s) to be used. The different types of depreciation include: straight line, declining balance (or double declining balance), sum-of-the-years' digits, and units of production.

6. Palfinger routinely opts to perform major renovations and value-enhancing modifications to equipment and buildings rather than buy new assets. How does Palfinger treat these expenditures? What is the alternative accounting treatment?

This company routinely opts to perform major renovations and value-enhancing modifications to equipment and buildings rather than buy new assets. Therefore, Palfinger is treating these expenditures by capitalizing the new cost of these improvements while keeping the carrying amount of the old asset on the books to increase the assets useful life. The justification for this approach is that the assets are sufficiently depreciated to reduce its carry amount to almost zero, or as close as it can get to zero. However, another option for Palfinger is to charge the cost to the accumulated depreciation account. This means when the company does not improve the quantity or quality of the asset itself but instead extends its useful life, the company debits the expenditure to "Accumulated depreciation" rather than to an asset account. The theory behind this approach is that the replacement extends the useful life of the asset and thereby recaptures some or all of the past depreciation. The net carrying amount of the asset is the same whether debiting the asset or accumulated depreciation. A final option for Palfinger is to use the substitution approach. The substitution approach is advantageous if the carry amount of the old asset is available. Overall this approach simply removes the cost of the old asset and replaces it with the cost of the new asset.

However, if Palfinger cannot determine the carry amount of the old asset, the company must use one of the previous approaches.

7. Use the information in the financial statement notes to analyze the activity in the "Property, plant and equipment" and "Accumulated depreciation and impairment" accounts for 2007. Determine the following amounts:

i. The purchase of new property, plant and equipment in fiscal 2007.

The amount of additions included in the 2007 acquisition cost is €61,444.

ii. Government grants for purchases of new property, plant and equipment in 2007. Explain what these grants are and why they are deducted from the property, plant and equipment account.

Government grants are used to fund new property, plant and equipment regarding construction and purchases. These grants are allocated in the Construction in Progress account over the periods that Palfinger recognizes expenses for the grants intended costs. Once the grant is deducted from the carrying amount of the asset, the amount is recognized over the period of revenue recognition, or the assets expected revenue less related costs. The government grants for purchases of new property, plant, and equipment is a deduction of €733 for 2007.

iii. Depreciation expense for fiscal 2007.

The depreciation expense for the fiscal year is €12,557 for 2007, as found in the notes to the financial statements.

iv. The net book value of property, plant and equipment that Palfinger disposed of in fiscal 2007.

The net book value of property, plant, and equipment that Palfinger disposed of in the 2007 fiscal year is €12,298. The company should use the total number found in the Disposals row since there is no cost or accumulated depreciation for the individual assets.

8. The statement of cash flows (not presented) reports that Palfinger received proceeds on the sale of property, plant and equipment amounting to €1,655 in fiscal 2007. Calculate the gain or loss that Palfinger incurred on this transaction.

The statement of cash flows reports that Palfinger received proceeds on the sale of property, plant, and equipment amounting to €1,655 in the fiscal 2007. The revenue received is then subtracted from the disposal cost of the asset, which was found to be €12,298. The difference of €10,643 is represented as a loss on the disposal of plant assets. In economic terms, this loss represents the difference between the total revenue received from the sale of the property, plant, and equipment and the total costs, including opportunity costs, of all the resources used by the firm. An opportunity cost is the value of a trade-off when a decision needs to be made. Economic losses are useful when comparing decisions with multiple variables that will affect profit. In this situation, Palfinger most likely decided that selling the PP&E asset was the best option for the firm when thinking about the asset's costs.

9. Consider the €10,673 added to "Other plant, fixtures, fittings, and equipment" during fiscal 2007. Assume that these net assets have an expected useful life of five years and a salvage value of €1,273. Prepare a table showing the depreciation expense and net book value of this equipment over its expected life assuming that Palfinger recorded a full year of depreciation in 2007 and the company uses:

i. Straight-line depreciation

The straight-line depreciation for "Other plant, fixtures, fittings, and equipment" during the fiscal 2007 is calculated by taking the net present value of the asset less the estimated salvage value, and then dividing that number by the expected useful life number of years. This depreciation method uses a constant yearly depreciation. The table on the next page shows that the depreciation expense remains the same throughout all years. Please note, while formatting the cells to show currency for the first row of numbers, excel places the Austria currency sign behind the numbers.

Table 5-1: Straight-line Depreciation Table

Straight-line Depreciation Table				
Year	Value of Assets	Depreciation Expense	Accumulated Depreciation (End of Year)	Book Value (End of Year)
0	10,673 €	0 €	0 €	10,673 €
1	10,673	1,880	1,880	8,793
2	8,793	1,880	3,760	6,913
3	6,913	1,880	5,640	5,033
4	5,033	1,880	7,520	3,153
5	3,153	1,880	9,400	1,273

ii. Double-Declining Balance Depreciation

The double declining method for "Other plant, fixtures, fittings, and equipment" is quite different than the straight-line method. With this method, first one must calculate a rate for the depreciation. This rate is calculated by taking one-hundred percent divided by the expected useful life number of years, in this case the number of years will be 5. This number will then be multiplied by 2 due to emphasize that this is the "double" declining method. In this case scenario, the rate would be 40 percent (calculated as 1 divided by 5, then multiplied by 2). To determine the depreciation expense for each year, multiply the value of the asset each year by the 40 percent rate. Notice at the end of year 5, the ending book value must equal the salvage value. Therefore, the depreciation expense must be adjusted to €110. Again, please note, while formatting the cells to show currency for the first row of numbers, excel places the Austria currency sign behind the numbers.

Table 5-2: Double Declining Depreciation Table

Double Declining Balance Method				
Year	Value of Asset	Depreciation Expense	Accumulated Depreciation (End of Year)	Book Value (End of Year)
0	10,673 €	0 €	0 €	10,673 €
1	10,673	4,269	4,269	6,404
2	6,404	2,562	6,831	3,842
3	3,842	1,537	8,368	2,305
4	2,305	922	9,290	1,383
5	1,383	110	9,400	1,273

10. Assume that the equipment from part i. was sold on the first day of fiscal 2008 for proceeds of €7,500. Assume that Palfinger's accounting policy is to take no depreciation in the year of sale.

i. Calculate any gain or loss on this transaction assuming that the company used straight-line depreciation. What is the total income statement impact of the equipment for the two years that Palfinger owned it? Consider the gain or loss on disposal as well as the total depreciation recorded on the equipment.

Below, a table was used to calculate the gain or loss found from the sale of equipment. The equipment, from part I, was sold on the first day of fiscal 2008 for proceeds of €7,500. The income statement impact of the equipment for the two years that Palfinger owned it is that the company will only record depreciation for one year, until putting the gain or loss under other gains and losses on the income statement. Again, please note, while formatting the cells to show currency for the first row of numbers, excel places the Austria currency sign behind the numbers.

Table 5-3: Straight-line Depreciation: Gain/Loss on Disposal

Straight-line Loss on Sale of Asset	
Cost of Asset	10,673 €
Less: Depreciation	-1,880
Net Book Value	8,793
Less: Cash Received	-7,500
Loss on Sale	1,293 €

ii. Calculate any gain or loss on this transaction assuming the company used double-declining-balance depreciation. What is the total income statement impact of this equipment for the two years that Palfinger owned them? Consider the gain or loss on disposal as well as the total depreciation recorded on the equipment.

The income statement impact of the equipment for the two years that Palfinger owned it is that the company will only record depreciation for one year, until putting the gain or loss under other gains and losses on the income statement. Again, please note, while formatting the cells to show currency for the first row of numbers, excel places the Austria currency sign behind the numbers.

Table 5-4: Double Declining Depreciation: Gain/Loss on Disposal

Double Declining Balance Gain on Sale of Asset	
Cost of Asset	10,673 €
Less: Depreciation	-4,269
Net Book Value	6,404
Less: Cash Received	-7,500
Gain on Sale	1,096 €

iii. Compare the total two-year income statement impact of the equipment under the two depreciation policies. Comment on the difference.

The difference between the two-year income statement impact of the equipment under the two depreciation policies is that the straight-line method will be under the "Other revenues and gains" and the double declining balance method will be under "Other expenses and losses." Depreciation is an expense on the

income statement and decreases a company's net income. Under straight-line depreciation, the depreciation expense will be lower; however, this method shows a loss on the income statement which will decrease net income. Using the double-declining balance method, the depreciation expense is higher; yet, Palfinger will report a gain on the income statement. Overall, each method affects tax expense, depreciation expense, and net income differently, which is something the company's management must consider when choosing a depreciation method.

Case 6: Research Development Costs

Executive Summary

Volvo Group is a case to inform on research and development costs since the company is constantly looking for innovative automobile ideas. With headquarters in Torslanda, Sweden, Volvo Group supplies commercial vehicles including trucks, buses, construction equipment, engines and drive systems. This company invests roughly 13 billion Swedish Krona in research and development activities to achieve new technical breakthroughs. The company focuses mainly on reducing environmental impact and meeting future emissions and other regulations globally. Volvo Group also employs around 90,000 people around the world with production facilities in 19 countries, and sales activities in roughly 180 countries. Volvo is a company that strives to find modern developments to improve the automobile industry.

Analysis

The Volvo Group taught me about the IFRS and GAAP in a real situation. After researching information about both of these different accounting principles, I now understand more about how each method is used and why it is used for that way. I also learned about how intangible assets are accounted for and how companies determine different ways to amortize these assets. Research and development costs can be very detrimental to a company, so keeping financials accurate and doing impairment test on indefinite intangible assets at appropriate times is a crucial part of businesses. I also enjoyed searching through the financials, determining what numbers to use, and then applying that knowledge by finding proportions of R&D costs incurred. This case gave me an overall better understanding of R&D costs and how to apply them.

1. The 2009 income statement shows research and development expenses of SEK 13,193 (millions of Swedish Krona). What types of costs are likely included in these amounts?

Research and development costs are the innovation and investigation of activities a business conducts to improve existing products and procedures to lead to the development of new products and procedures. This amount on Volvo's income statement most likely includes materials, equipment, and facilities that are currently in use. Some other R&D costs are personnel expenses like salaries and wages, purchased intangibles, contract services that are in connection with the project, and a reasonable allocation of indirect costs. The allocation of indirect costs does not include general and administrative costs unless these costs are clearly related to the R&D project.

2. Volvo Group follows IAS 38—*Intangible Assets*, to account for its research and development expenditures (see IAS 38 excerpts at the end of this case). As such, the company capitalizes certain R&D costs and expenses others. What factors does Volvo Group consider as it decides which R&D costs to capitalize and which to expense?

To account for its research and development expenditures, Volvo Group follows IAS 38, while capitalizing certain R&D costs and expensing others. Volvo Group mentions in their notes that the acquisition value for intangible assets should be amortized over the estimated useful life of the assets. Next, in order for the development expenditures to be reported as assets, certain criteria must be met as stated in IAS 38. This criteria for the expenditures are to prove the technical functionality of a new product or software before

its development is reported as an asset. In general, expenditures are capitalized only during the development phase of the asset, or intangible assets. Other research and development expenses are charged to income as incurred. If Volvo Group is using IAS 38, the company must follow all criteria rules that IAS 38 requires, which can be difficult to apply in certain case scenarios.

3. The R&D costs that Volvo Group capitalizes each period (labeled Product and software development costs) are amortized in subsequent periods, similar to other capital assets such as property and equipment. Notes to Volvo's financial statements disclose that capitalized product and software development costs are amortized over three to eight years. What factors would the company consider in determining the amortization period for particular costs?

The research and development costs that Volvo Group capitalizes each period are amortized in subsequent periods, similar to other capital assets such as property and equipment. Notes to Volvo's financial statements disclose that capitalized product and software development costs are to be amortized over three to eight years. Amortization is similar to depreciation, except amortization allocates intangible assets over a period of time. In determining the amortization period for particular costs the company must determine the value of the intangible asset, and, if definite, how to expense the amount throughout it's useful life. An intangible asset's useful life can be indefinite or definite. For example, McDonald's name and, most importantly, golden arches are trademarks that have an indefinite life. There is no estimated amount of cash flows from these trademarks so they cannot be amortized over time. Instead, a company will run an impairment test,

usually annually, to determine if there is a loss in the intangible asset's carry amount. If a loss has occurred, the company must recognize the loss and in correlation the loss may never be reversed after incurred.

4. Under U.S. GAAP, companies must expense all R&D costs. In your opinion, which accounting principle (IFRS or U.S. GAAP) provides financial statements that better reflect costs and benefits of periodic R&D spending?

Companies must expense all R&D costs under U.S. GAAP. However, I believe that the IFRS provides financial statements that better reflect costs and benefits of periodic R&D spending. I believe the IFRS is better mainly because the question mentions benefits as well. The U.S. GAAP rules, to my understanding, focus more on expensing the R&D costs since benefits are not guaranteed. However, the IFRS allows R&D costs to be capitalized and amortized. Although it seems like a great idea to capitalize and amortize these expenses, it is not that easy. Under IAS 38, Volvo may only use the IFRS accounting principle if it meets a number of criteria. If the intangible does not meet one of these regulations, the asset must be expensed as U.S. GAAP requires. A few IFRS regulations state that Volvo must complete the intangible asset so that it is available for use or sale, have intention and ability to use or sell the asset, and be able to measure the cost of the asset reliably. These regulations can be difficult to achieve so for simplicity, U.S. GAAP states to expense all costs.

5. Refer to footnote 14 where Volvo reports an intangible asset for "Product and software development." Assume that the product and software development costs

reported in footnote 14 are the only R&D costs that Volvo capitalizes.

i. What is the amount of the capitalized product and software development costs, net of accumulated amortization at the end of fiscal 2009? Which line item on Volvo Group's balance sheet reports this intangible asset?

The amount of capitalized product and software development costs, net of accumulated amortization at the end of fiscal 2009 is 11,409 kr (the acquisition cost of 25,148 kr less the accumulated depreciation and amortization cost of 13,739 kr). On Volvo's balance sheet, the product and software development costs are included in the "Intangible assets" line, which is the second line item under assets on the consolidated balance sheet.

ii. Create a T-account for the intangible asset "Product and software development," net of accumulated amortization. Enter the opening and ending balances for fiscal 2009. Show entries in the T-account that record the 2009 capitalization (capital expenditures) and amortization. To simplify the analysis, group all other account activity during the year and report the net impact as one entry in the T-account.

The T-account on the next page shows the capitalization and amortization for 2009 for the intangible asset "Product and software development." The beginning balance of 12,381 kr is from the 2008 net carry value of the account and the ending balance of 11,409 kr comes from part i. The capital expenditure acquisition costs of 2,602 kr increases the account, whereas the capital expenditure accumulated amortization costs of 3,126 kr decrease the account. The 448 kr is then calculated to meet the 2009 net ending balance for product and software development.

Table 6-1: T-Account -- Product and Software Development, Net

Capitalization of Product and Software Development, net of accumulated amortization	
12,381 kr	
2,602	
	3,126
	448
11,409 kr	

6. Refer to Volvo's balance sheet, footnotes, and the eleven-year summary. Assume that the product and software development costs reported in footnote 14 are the only R&D costs that Volvo capitalizes.

i. Complete the table below for Volvo's Product and software development intangible asset.

On the next page, the numbers in bold were previously missing from the table. All numbers can be found in the financials except for the first bolded value of 1,858 kr. This number was calculated using all of the changes in acquisition costs found in Note 14. To further explain, the capital expenditures of 2,604 kr less the sales scrapping of 274 kr, plus the acquired and divested operations of $3, less the translation differences of 716 kr, and adding the reclassification and other costs of 243 kr. If followed correctly, you should reach the 2009 product and software development costs capitalized during the year of 1,858 kr.

Table 6-2: Comparative Research and Development Schedule

(in SEK millions)	**2007**	**2008**	**2009**
1) Product and software development costs capitalized during the year	2,057	2,150	**1,858**
2) Total R&D expense on the income statement	**11,059**	**14,348**	**13,193**
3) Amortization of previously capitalized costs (included in R&D expense)	2,357	2,864	**3,126**
4) Total R&D costs incurred during the year = 1 + 2 - 3	**10,759 kr**	**13,634 kr**	**11,925 kr**

iii. To determine the proportion of Total R&D costs capitalized in each of the three years, Volvo company would use a calculation similar to the profit margin ratio, Volvo must take the (1) Product and software development costs capitalized during the year divided by the (4) Total R&D costs incurred during the year and multiply by 100 percent to get the proper percentage. The proportion of Total R&D costs capitalized for 2007 is 19.12 percent, for 2008 is 15.77 percent, and for 2009 is 15.58 percent. Although the total costs seem to increase and decrease throughout the three years, the percentage of costs being capitalized continuously decreases during these three years.

7. Assume that you work as a financial analyst for Volvo Group and would like to compare Volvo's research and development expenditures to a U.S. competitor, Navistar International Corporation. Navistar follows U.S. GAAP that requires that all research and development costs be expensed in the year they are incurred. You gather the following information for Navistar for fiscal year end October 31, 2007 through 2009.

i. Use the information from Volvo's eleven-year summary to complete the following table:

Table 6-3: Comparative Schedule of Net Sales and Total Assets

(in SEK millions)	**2007**	**2008**	**2009**
Net sales, industrial operations	**276,795**	**294,932**	**208,487**
Total assets, from balance sheet	321,647	**372,419**	**332,265**

ii. Calculate the proportion of total research and development costs incurred to net sales from operations (called, net sales from manufactured products, for Navistar) for both firms. How does the proportion compare between the two companies?

Starting with Navistar, for year 2007 take $375 divided by $11,910 to get 3.15 percent, for year 2008 take $384 divided by $14,399 to get 2.66 percent, and for year 2009 take $433 divided by $11,300 and multiply by 100% to get 3.83 percent. Now moving on to Volvo Group, for year 2007 take 10,759 kr divided by 276,795 kr to get 3.89 percent, for year 2008 take 13,634 kr divided by 294,932 kr to get 4.62 percent, and for year 2009 take 11,925 kr divided by 332,265 kr to get 3.59 percent. The chart below shows only the percentages in a better way.

Table 6-4: Comparison of Proportion of R&D to Net Sales

Profit Margin %	2007	2008	2009
Navistar	3.15%	2.66%	3.83%
Volvo Group	3.89%	4.62%	3.59%

The percentages for each company, although similar, show that Volvo Group has slightly more R&D costs in total than Navistar. However, in 2009 Volvo Group had a lower percentage of R&D costs than Navistar, so hopefully Volvo Group can continue to keep R&D costs around the industry average.

Case 7: Data Analytics

Executive Summary

This case is based on the statistical analysis system (SAS) tool. In the following pages, I will discuss the history, uses, and skills required to fully utilize the SAS tool. SAS is a simple, yet very complex, data analytics tool. It is simply a software allowing users to save time while remaining accurate and cutting costs in many areas. Anyone can download SAS onto their computer, although the additional SAS industry tools are often used for companies. The number of systems and uses for SAS are truly endless. I will explain many of the tools below; however, after exploring the website, the number of products for use are available for further information on the SAS product website, which is cited in many articles at the end of this case.

Analysis

In this case, I learned how truly beneficial software products can be for not only businesses and corporations, but also individual users. It is interesting to think that in the past, it wasn't quite as simple to create a graph, or data table, as it is now. Software and coding technology are continuously changing the world, and accountants need to be up to date on this information. This case taught me about my future career in accounting and how data analytics technology will continue to change and my path will be a continuous learning process. The job will always stay interesting. That being said, data analytics will be very beneficial to the world as it further develops. Overall, what I've learned is all of the information in the pages below about SAS. The SAS tool is a very high-tech system that could discover and prevent many problems, as you will read in the following pages.

History and Reasoning

Statistical analysis system (SAS) was created at North Carolina State University for a project by Jim Goodnight, the company's current CEO, and Jim Barr, the founder. It is defined as an integrated software suite for advanced analytics, business intelligence, data management, and predictive analysis. It was originally used to analyze agricultural research, according to the SAS website. In 1976, demand for a better software was growing, so SAS became available in many different industries. From pharmaceutical companies and banks to governmental entities, all industries found a need and a use for SAS. This tool unites industry expertise and analytical technology in a fast-paced environment to make its users time more valuable. Once SAS became more popular, the creators left NCSU to form the *SAS Institute Inc.* in March 1976. In 2014, the founders created SAS Analytics U which provided free technologies and support mechanisms to teachers and students. The SAS software is currently used in over 80,000 business, government, and university sites. The purpose of SAS is to allow users to access data in practically any format, manage and manipulate user's existing data, and to analyze data using statistical techniques. Then, SAS will present the results of the analyses' in a meaningful report that can be shared with other users. All a user needs to fully utilize SAS is a working computer, the SAS software itself, and someone who can download the software onto the users' computer.

Technology

In order to fully utilize this tool, one would need the knowledge of how to use statistical data, enter it into a computer, and which buttons will need to be used to save time with SAS. This tools' use ranges from entering a simple graph on Microsoft to

helping the U.S. criminal justice department catch perpetrators. As a student, hearing the words "data analytics" scares me at times. I often believe it's far too complex for my mind to ever fully understand. However, the generic tools are what my generation has grown up around. When it comes to data and statistics, the computer software has always been around to help organize data on systems, such as Microsoft Access, or organize data that has been inputted into a computer. With that being said, for me to gain skills to understand this tool, SAS offers free training tutorials, courses, text books, etc. to help users understand it better (SAS—*Smith*). When it comes to downloading the actual system onto the computer, having a background with coding would enhance my ability to understand which version of SAS would be of the highest benefit.

Audit

Scenario 1: In auditing, one way SAS could improve effectiveness is by making it easier for auditors to make decisions based on previous data. SAS is a system developed to organize data and find trends in that data. For example, if an auditor wants to examine a company's internal control processes, the auditor could create an auditing questionnaire for the people employed at that business. Then, the auditor could use SAS to organize the data from the questionnaire to see if there are any similar complaints or recommendations. After finding this information, the auditor can finalize a report with statistical information using the SAS tool for the business to review (*Statistical Analysis System*).

Scenario 2: Another example where SAS is helpful to auditors is when it comes to tracking inventories. SAS actually has a special tool called SAS Inventory Optimization Workbench. This helps transform, standardize, and cleanse the data for inventory

optimization. Using this software can help auditors save time and money while increasing sharing and visibility to inventory levels, according to the SAS website. Below is a picture of the workbench, which was also found on the SAS website (*SAS Institute—Inventory Optimization*).

Scenario 3: Following the Inventory Optimization Workbench, SAS provides numerous options allowing work to be collaborated with ease. It is one of the only tools that recognizes workflow issues with forecasting and planning. When auditors are forming reports, and analyzing businesses, collaboration and communication are two key aspects. The analysis tool allows auditors to track demand-driven forecasts based on past shipments and orders. When SAS creates a statistical forecast, it will compare the accuracy of that forecast to an auditor's forecast using the SAS Collaborative Planning Workbench. This tool separates the forecasted processes, events, and activities. That being said, this integrated tool ensures that the data is moving quickly between applications and users, making communication and collaboration faster and easier (*SAS Institute—Collaborative Planning)*.

Tax Planning

Scenario 1: A key part of tax planning is to track expenses. Many businesses experience fraud as an expense, sometimes a quite large one. The SAS company recognized this issue by developing a fraud protection framework. This tool processes all data through advanced analytics models using rule engines to detect possible causes using a customized detection method. Using this tool can improve company efficiency and ROI by selecting greater value networks, and running more efficient and accurate investigations. Tax planners can use this to understand new threats and prevent losses

earlier using the high-quality data mining techniques that SAS provides. This tool with continuously betters the system and alerts businesses to changes in fraud trends. By monitoring fraudulent users, tax planners will save their clients from risk and asset losses (*SAS Institute—Fraud Framework*).

Scenario 2: Another issue tax planners must account for is preventing money laundering. When a tax accountant discovers a client is money laundering they are required to complete a suspicious activity report (SAR) to the National Crime Agency. The accountant must be able to tell why they are suspicious of the client and the risks associated with money laundering. Using the SAS tool, tax accountants can monitor suspicious activity, document the process, and file the reports. The SAS Anti-Money Laundering technology has an interface, a way for accountants to interact directly with the law, to make quick, accurate decisions. A key part of this tool is the scenario engine that detects suspicious activity and generates alerts for its users. It is programed with algorithms and alerts that identifies and uses government laws that easily locate high-risk accounts. The tax planner can manage alerts from the system to preserve data security and minimize IT costs (*SAS Institute—Anti-Money Laundering*).

Scenario 3: Tax planners take many considerations into account such as an individual's timing of income, investments, and retirement plans. The SAS tool has a software that helps families plan for health care and retirement. However, I am going to focus on the SAS software for pension planning. SAS has an understandable, web-based risk management solution that is designed specifically for pension administrators. Tax planners could use this system to help clients make long-term cash flow projections by exposing users to cash flow modeling and commitment planning for their pension plan.

This tool can act as a third party by receiving details from the tax planner, or firm, while only surfacing reports and analytics to the customer (*SAS Institute—Pension Risk*).

Financial Statement Analysis

Scenario 1: Financial statement analysists must focus on budgeting for their clients. The SAS websites promotes using the SAS Business Analytics tool to collect and process data from a host of current systems. This is used as a continuous budgeting control tool that compares current budgets with forecasted figures. When the system compares the two, any differences found are highlighted in red, yellow, or green, called the traffic light function, to show how well budget guidelines are being followed. To help identify future or early noticed problems, the SAS tool also points out details responsible for the consequences with the traffic light function. These benefits inform clients with better financial budget forecasts, awareness of future issues, and updated trend findings (*SAS—Manage Budgets*).

Valuation

Scenario 1: SAS has many functions to help businesses work with the time value of money. The newer versions of SAS have a finance function for people to easily calculate present and future values of their notes and bonds payable for both the creditor and debtor. This tool can be very useful for any accountants—think if students could use this for intermediate tests! However, although it can be useful for accountants, it could also be useful for anyone trying to calculate values, which could hurt future jobs. SAS provides a support website showing users exactly how to use the finance function. By reading some of the questions, it is obvious many people are trying to make calculations at home. That being said, accountants are more in the know with SAS and the time value of money

functions and would absolutely benefit from this tool when it comes to the valuation of assets or stock (*Statistical Analysis System*).

Advisory

Scenario 1: Many accounting firms currently use SAS for advisory and risk purposes. There are a number of tools to assist people in this work: SAS consulting services, SAS benchmarking, SAS developers, and more. However, I found the most beneficial product for advisory accountants to be the SAS Risk Dimensions tool. This tool tracks market risks, credit risks, portfolio risk, and liability management. Advisors are able to customize risk applications that will evaluate and analyze client's portfolios. This tool also provides insight on current market data. Overall, SAS advisory tools are focused around finding future and current risks (*SAS Institute—Risk Dimensions*).

Why Invest?

As mentioned earlier, most firms already use at least a couple SAS tools. For example, Deloitte is currently a platinum partner with the SAS institute. Also, KPMG and SAS teamed up in Singapore to create two new Managed Analytics Service Providers (MASP) solutions last year. MASP solutions are the first cloud-based, cost-effective, and secure solutions that help financial institutions in Asia meet the IASB's new IFR9 reporting standards (*KPMG*). This example shows that SAS works very closely with accounting firms to improve the ease of data analytics into everyday life. I believe accounting firms need to invest in the acquisition of the SAS tool because it is one of the first analytics software. The SAS project began working with data analytics in 1966, and evolved into the world's largest private software business. This tool proves to be reliable,

accurate, and easy to use. As mentioned in answer number two, SAS training can be completed online, in a class, or on your own with free tutorials or textbooks.

This tool is currently evolving the future with products in over 25 broad industries, which can be found on the SAS website. SAS also allows its users to network and exchange ideas in user groups, which is beneficial to smaller sized businesses and firms. All of the products mentioned above will impact the future engagements of accounting firms and clients. However, SAS having its own advisory service could potentially hurt firms' advisory practices. The SAS Institute has continued to grow since 1966 and the company CEO, James Goodnight, is still coding in hopes of continuously bettering the future of data analytics (*Statistical Analysis System)*.

Case 8: Long-Term Debt

About the Case

This case is about Rite Aid Corporation's long-term debt. If you're wondering, Rite Aid is the third largest retail pharmacy in the United States with over 4,780 stores in 31 states. In 2009, Rite Aid pharmacists filled over 300 million prescriptions, which is nearly 68 percent of total sales. This company also sells a broad range of over-the-counter medications, household items, and a variety of other convenience store items. This case specifically will focus on long-term debt reporting, understanding discounts, and using footnotes to grasp a better concept of the financials. I will explain these concepts and calculations in details throughout the case to be easily understood.

What I Learned

During this case, I furthered my knowledge on effective interest amortization schedules, especially by using excel formulas and the copy and paste buttons to calculate the numbers for each of the seven years in part e of the case. Another thing I am struggling with in intermediate II is finding the effective interest rates. This case taught me how to use the excel RATE formula to easily calculate the rate. I also learned that by dividing the current year's interest expense by the prior period's carry value of the note can also determine the effective interest rate. Lastly, this case helped me to state whether a journal entry increases or decreases assets, liabilities, and income faster and more comprehendible than before this case.

1. Consider the various types of debt described in note 11, Indebtedness and Credit Agreement.

i. Explain the difference between Rite Aid's secured and unsecured debt. Why does Rite Aid distinguish between these two types of debt?

Secured debt is backed by a pledge of some type of collateral to reduce the risk associated with lending money. For example, a lender could place a lien on a borrower's car or house so if the borrower falls behind on payments, the lender is able to take the borrowers car or whatever asset has the lien. Unsecured debt is not backed by any sort of collateral so if a borrower cannot repay the lender, the lender is not able to take any of the borrower's assets in return. Rite Aid should segregate these two types of debt because each type has different debt agreements, risks, and interest rates.

ii. What does it mean for debt to be "guaranteed"? According to note 11, who has provided the guarantee for some of Rite Aid's unsecured debt?

For debt to be guaranteed, the borrower will bring in a third party to co-sign on the debt, stating that the third party will pay the debt if the borrower falls behind on payments or cannot repay the debt. Rite Aid currently has wholly-owned subsidiaries that guarantee the obligations under the senior secured credit facility, according to note 11. The notes mentioned on page 86 of the case mention that the secured notes have a lien on inventory, accounts receivable, prescription files, and many other assets of the subsidiary guarantors.

iii. What is meant by the terms "senior," fixed-rate," and "convertible"?

The term “senior” refers to debt that takes priority over the other unsecured debt if the issuer would go into bankruptcy. Senior debt is the debt that gets paid off first if Rite Aid would go into liquidation or, as mentioned before, bankruptcy. The term “fixed-rate” means the interest rate on a liability will remain the same for the entire life of the liability. The term “convertible” means a bond that can be changed into other corporate securities, usually during a specified period of time after issuance.

iv. Speculate as to why Rite Aid has many different types of debt with a range of interest rates.

Rite Aid has many different types of debt with a range of interest rates because some debt is secured and other debt is unsecured, resulting in varying interest rates. Also, Rite Aid’s notes were issued at par, discounts, or premiums, which effects the interest rate on the notes differently. Lifespan, issue price, and market price all cause interest rates to fluctuate for different types of debt.

2. Consider note 11, Indebtedness and Credit Agreement. How much total debt does Rite Aid have at February 27, 2010? How much of this is due within the coming fiscal year? Reconcile the total debt reported in note 11 with what Rite Aid reports on its balance sheet.

To calculate Rite Aid’s total debt, one must take the company’s total current debt, which is $51,502, adding the total long-term debt of $6,370,899 and the company’s lease financing obligations, which are periodic payments, of $133,764. Once these numbers are added the total debt for Rite Aid should equal $6,370,899. These numbers can be found

on the consolidated balance sheet under liabilities. To determine how much debt is due within the coming fiscal year just refer back to the total current debt which is $51,502.

3. Consider the 7.5% senior secured notes due March 2017.

i. What is the face value (i.e. the principal) of these notes? How do you know?

The 7.5 percent senior secured notes due in March 2017 has a face value of $500,000, which can be found in note 11. You should recognize this as the face value amount because there are no calculations next to the note, meaning the only value given must be the par value of the note.

ii. Prepare the journal entry that Rite Aid must have made when these notes were issued.

Table 8-1: Journal Entry for Issuance of Notes at Par

Cash	500,000	
Notes Payable		500,000

iii. Prepare the annual interest expense journal entry. Note that the interest paid on a note during the year equals the face value of the note times the stated rate (i.e., coupon rate) of the note.

Table 8-2: Journal Entry to Record Annual Interest Payment on Notes Outstanding

Interest Expense	37,500	
Cash		37,500

To determine the annual interest expense, you must take the face value of the note and multiply by this note's stated interest rate of 7.5 percent. This entry would credit the cash account because it is a yearly interest expense that is paid in cash

at the end of the fiscal year. This interest expense entry would decrease assets and income having no effect on liabilities.

iv. Prepare the journal entry that Rite Aid will make when these notes mature in 2017.

Table 8-3: Journal Entry to Record Retirement of Notes

Notes Payable	500,000	
Cash		500,000

4. Consider the 9.375% senior notes due December 2015. Assume that interest is paid annually.

i. What is the face value of these notes? What is the carrying value (net book value) of these notes at February 27, 2010? Why do the two values differ?

These notes will have a face value of $410,000. However, the carry value of these notes differs from the face value. The carry value will equal the face value less the unamortized discount for the current year. The 2010 net book value equals $405,951, which is $410,000 less the $4,049 discount. Using that calculation, we determine the $4,754 discount was used to get the 2009 net book value. The face and carry values differ because, when Rite Aid purchased these notes, the cash proceeds of the notes were less than the face value of the note.

ii. How much interest did Rite Aid pay on these notes during the fiscal 2009?

Rite Aid paid $38,437.50 in cash interest payments. To get this rate you take the principal amount of $410,000 multiplied by the rate, which is 9.375 percent, and multiply that value by the portion of the year, which would be one in this case because the interest is for fiscal 2009.

iii. Determine the total amount of interest expense recorded by Rite Aid on these notes for the year ended February 27, 2010. Note that there is a cash and a noncash portion to interest expense on these notes because they were issued at a discount. The noncash portion of interest expense is the amortization of the discount during the year.

The total amount of interest expense recorded by Rite Aid on these notes for February 27, 2010, or the year ended, is $39,142.50. This number is calculated by taking the notes 2010 carry value less the 2009 carry value. The 2010 carry value for the 9.375 percent note is $405,951 and the 2009 carry value is $405,246. This means the discount on notes payable has decreased and has been amortized for $705 as of February 27, 2010. That being said, the cash interest expense payment will always remain the same. The discount on notes payable account is credited, to decrease the discount account, and added with the cash payment to total Rite Aid's interest expense for the period.

iv. Prepare the journal entry to record interest expense on these notes for fiscal 2009. Consider both the cash and discount portions of the interest expense from part iii above.

Table 8-4: Journal Entry to Record Interest Expense on Notes

Interest Expense	39,142.50	
Discount on Notes Payable		705
Cash		38,437.50

This entry would decrease assets with the cash account and decrease income with the interest expense account for Rite Aid. However, this entry would have no effect on liabilities, even though the discount on notes payable account is

increasing the notes payable account. Since the discount on notes payable is a contra liability account, crediting the discount makes the total amount of the notes payable account gradually increase until it reaches the total face value of $410,000. Although the notes payable account is increasing, the net amount for total liabilities remains unchanged with this discount account being a contra account for notes payable.

v. Compute the total rate of interest recorded for fiscal 2009 on these notes.

The total rate of interest recorded for fiscal 2009 on these notes is 9.659 percent. This effective interest rate is calculated by taking the current interest expense and dividing it by the 2009, or prior year's, carry value.

5. Consider the 9.75% notes due June 2016. Assume that Rite Aid issues these notes on June 30, 2009 and that the company pays interest on June 30th of each year.

i. According to note 11, the proceeds of the notes at the time of issue were 98.2% of the face value of the notes. Prepare the journal entry that Rite Aid must have made when these notes were issued.

The last notes to be considered are the 9.75 percent senior secured debt notes. According to note 11, the proceeds on the notes at the time of issue were 98.2 percent of the face value of the notes, or a discount. To get started, we will show the journal entry for the issuance of these notes below:

Table 8-5: Journal Entry to Record Issuance of Notes at a Discount

Cash	402,620	
Discount on Notes Payable	7,380	
Notes Payable		410,000

ii. At what effective annual rate of interest were these notes issued?

The rate was calculated using the Excel RATE function. To use this function, you must enter the function followed by the number of periods, cash interest payments–which needs to be entered as a negative amount, the present value of the notes' cash proceeds, and the face value of the notes—which should also be a negative amount to make the function run properly. For these specific notes, Rite Aid should enter into Excel '=RATE(7,-39975,402620,-410000)' to get the rate percentage value of 10.1212 percent.

iii. Assume that Rite Aid uses the effective interest rate method to account for this debt. Use the table that follow to prepare an amortization schedule for these notes. Use the last column to verify that each year's interest expense reflects the same interest rate even though the expense changes.

Table 8-6: Comparative Schedule of Effective Interest Rate

Date	Interest Payment	Interest Expense	Bond Discount Amortization	Net Book Value of Debt	Effective Interest Rate
6/30/09	0	0	0	$402,620	10.12%
6/30/10	39,975	40,750	775	403,395	10.12%
6/30/11	39,975	40,828	853	404,248	10.12%
6/30/12	39,975	40,915	940	405,188	10.12%
6/30/13	39,975	41,010	1,035	406,223	10.12%
6/30/14	39,975	41,115	1,140	407,363	10.12%
6/30/15	39,975	41,230	1,255	408,617	10.12%
6/30/16	39,975	41,357	1,383	410,000	10.12%

iv. Based on the above information, prepare the journal entry that Rite Aid would have recorded February 27, 2010, to accrue interest expense on these notes.

Table 8-10: Journal Entry for Interest Accrual on Notes

Interest Expense	27,167	
Discount on Notes Payable		517
Interest Payable		26,650

This entry would have no effect on assets until June 30th when cash is used to pay the interest payable. That being said, the entry above would increase liabilities due in June and decrease income for Rite Aid since the company is increasing its interest expense account.

v. Based on your answer to part iv., what would be the net book value of the notes at February 27, 2010?

The net book value of these notes at February 27, 2010 is $403,137. This number is calculated by taking the February 2010 beginning carry value of the note and adding the current year's portion of the discount. As mentioned above in part iv, the current discount for the year ended is $517 plus the beginning carry value of $402,620, which adds up to $403,137.

Case 9: Shareholders' Equity

Executive Summary

This case is about Merck and Co., Inc. Merck is a global research-driven pharmaceutical company that discovers, develops, manufactures, and markets a broad range of products to improve human and animal health. This large company employs almost 60,000 people worldwide. Most of its employees work in research and development for Merck, which is why stock investors benefit the company greatly. This case will focus on Merck's shareholders' equity—mainly common and treasury stock. I will interpret Merck's financial statements, explain why companies pay dividends and repurchase their own stock, and discuss the cash method for treasury stock. The company's shares are listed on the New York and Philadelphia Stock Exchange.

Analysis

This case taught me how to differentiate between authorized, issued, and repurchased company stock. Also, after further research, I learned more in depth about treasury stock, why companies pay dividends, and why companies desire to repurchase their own shares of stock. Overall, this case was helpful in a way that helped me understand more about accounting for stock, after my previous overall general understanding of stock. I also learned about why companies wish to better their ratios, pay more dividends, and use stock to increase profitability on financial reports and look more profitable to shareholders. Paying consistent dividends results in persuading investors to invest their money into Merck. Overall, this case helped me better evaluate common and treasury stock, and know how to account for it over time.

a. Consider Merck's common shares.

i. How many common shares is Merck authorized to issue?

Merck is authorized to issue 5,400,000,000 shares of common stock according to the December 31, 2007 balance sheet.

ii. How many common shares has Merck actually issued at December 31, 2007?

Merck has issued 2,983,508,675 shares of common stock.

iii. Reconcile the number of shares issued at December 31, 2007, to the dollar value of common stock reported on the balance sheet.

This number can be calculated by multiplying the total number of shares issued, or 2,983,508,675, by the par value, or one cent per share to get $29,835,087.

iv. How many common shares are held in treasury at December 31, 2007?

Merck has 811,005,791 shares held in treasury stock according to their consolidated balance sheet.

v. How many common shares are outstanding at December 31, 2007?

Merck has 2,172,502,884 shares of common stock outstanding as of December 31, 2007. To calculate the number of common stock shares outstanding, take the number of shares issued less the treasury stock shares for that period.

vi. At December 31, 2007, Merck's stock price closed at $57.61 per share. Calculate the total market capitalization of Merck on that day.

The total market capitalization for Merck on that day is $1,251,578,911. Market capitalization is the value of the company that is traded on the stock market. To

calculate market capitalization, take the number of shares outstanding multiplied by the market price for share, or $57.61 in this case.

b. Why do companies pay dividends on their common or ordinary shares? What normally happens to a company's share price when dividends are paid?

Companies pay dividends on their common, or ordinary, shares to let investors know their business is remaining profitable and to give them a return on their investments. Dividends can be given in a number of ways, such as cash, additional stock, or property. Companies who often pay dividends seem more attractive and influence investors to purchase their stock, resulting in more equity for the business. When dividends are paid, a company's stock share price decreases. This decrease occurs because the value of the company decreases once dividends are paid out.

d. In general, why do companies repurchase their own shares?

In general, companies repurchase their own shares of stock to invest in itself by bettering their payout and equity ratios to look more attractive to investors. Companies also repurchase their own stocks if they feel their shares are undervalued on the open market. Purchasing treasury stock, or company shares that the company reacquires itself, decreases owners' equity and the number of shares outstanding.

e. Consider Merck's statement of cash flow and statement of retained earnings. Prepare a single journal entry that summarizes Merck's common dividend activity for 2007.

The single entry that summarizes Merck's common dividend activity for 2007 is shown following the information shown. The numerical information is found on Merck's consolidated statement of cash flows and retained earnings. The cash account is credited for the number of dividends actually paid to stockholders, which is found on the statement of cash flows. Also, by crediting dividends payable, Merck will recognize an increase in dividends that need to be paid.

Retained Earnings on Dividends	3,310,700,000	
Dividends Payable		3,400,000
Cash		3,307,300,000

g. During 2007, Merck repurchased a number of its own common shares on the open market.

i. Describe the method Merck uses to account for its treasury stock transactions.

The cost method debits the treasury stock account for the reacquisition cost, and reports that specific account as a deduction from the total paid-in capital and retained earnings account. This means a company reports treasury stock at the cost of the shares repurchased at that time.

ii. Refer to note 11 to Merck's financial statements. How many shares did Merck repurchase on the open market during 2007?

Reading footnote 11, you can see that Merck purchased 26,500,000 shares of treasury stock in 2011. Footnote 11 also tells us the cost of repurchasing, so we can clarify Merck uses the cost method to account for treasury stock.

I. How much did Merck pay, in total and per share, on average, to buy back its stock during 2007? What type of cash flow does this represent?

The following table lists multiple ratios calculated for Merck. Take note that Merck's dividend per share price ratio represents the amount paid to shareholders each year. The dividend payout is the amount of dividend paid relative to the net income for that period. Although the payout ratio for 2007 is higher, the overall dividend per share paid to stockholders has decreased slightly. This is a result of Merck paying fewer dividends in 2007 than in 2006, which also lowers Merck's dividends to total assets and dividends to operating cash flows ratio.

Table 9-1: Comparative Schedule of Shareholders' Equity

	Merck ($)	
	2007	2006
Dividends Paid	3,307,300,000	3,322,600,000
Shares Outstanding	2,172,502,884	2,167,785,445
Net Income	3,275,400,000	4,433,800,000
Total Assets	48,350,700,000	44,569,800,000
Operating Cash Flow	6,999,200,000	6,765,200,000
Year-end Stock Price	$57.61	$41.94
Dividends Per Share (Dividends Paid / Shares Outstanding)	$1.52	$1.53
Dividend Yield (Dividends Per Share / Year-end Stock Price)	2.64%	3.65%
Dividend Payout (Dividends Paid / Net Income)	1.01%	0.75%
Dividends to Total Assets	6.84%	7.45%
Dividends to Operating Cash Flows	47.25%	49.11%

Case 10: Marketable Securities

Executive Summary

State Street Corporation is a major financial holding company with headquarters in Boston. State Street operates mostly through its principal banking subsidiary, State Street Bank and Trust, with a focus on serving investors. That being said, this case is about State Street Corporation's marketable securities. There are three types of securities: trading, available-for-sale, and held-to-maturity. Trading and available-for-sale securities can be either debt or equity; however, held-to-maturity securities can only be debt, which is explained in further detail throughout the State Street case. State Street's lines of operation, investment servicing and investment management, are used to support institutional investors worldwide. This case analyzes State Street's securities and shows the differences between each type of security.

Analysis

The State Street case refreshed and furthered my memory of the minor, yet crucial, differences between held-to-maturity, available-for-sale, and trading securities. Although they are all considered securities, the accounting methods for each type varies greatly. The hardest part of this concept for me was determining the difference between unrealized holding gains and losses to be reported in income or equity. After making that connection, I learned that the held-to-maturity securities can only be debt, not equity, securities. However, these securities can be sold before the maturity date as long as it does not make a material difference for the reporting entity. I also grasped a better understanding of how to interpret footnote disclosures, and use the interpretation to separate realized and unrealized gains.

a. Consider trading securities. Note that financial institutions such as State Street typically call these securities "Trading account assets."

i. In general, what are trading securities?

Trading securities are short term debt or equity securities that a company intends to sell quickly, usually within three months. Trading securities are typically used in attempt to make a profit through increases in the fair value of the securities and recognize unrealized holding gains and losses through earnings, or net income. The intent for these securities is to buy low and sell high. Although a company recognizes unrealized holding gains and losses for these securities, and available-for-sale securities, the company should not realize the gains and losses until the security is sold. Once the security is sold the unrealized gains or losses will become realized gains or losses.

ii. How would a company record $1 of dividends or interest received from trading securities?

A company should record $1 of dividends received from a trading security by debiting cash and crediting dividend or interest revenue.

Dividends		
Cash	1	
Dividend Revenue		1
Interest Received		
Cash	1	
Interest Revenue		1

iii. If the market value of trading securities increased by $1 during the reporting period, what journal entry would the company record?

The journal entry would be a debit to the fair value adjustment account and a credit to the unrealized holding gain or loss, which flows through income. The increase in fair value is a gain for the company so we need to increase the account, which is why the unrealized holding gain or loss income account is credited.

Fair Value Adjustment	1	
Unrealized Holding Gain or Loss -- Income		1

b. Consider securities available-for-sale. Note that State Street calls these, "Investment securities available for sale."

i. In general, what securities are available-for-sale?

In general, available-for-sale securities include any debt and equity securities that may be sold in the future that are not trading securities. Available-for-sale securities are also adjusted to fair value; however, the unrealized holding gains and losses for these securities are recognized through equity. This equity account is then reported on the other comprehensive income section on the balance sheet.

ii. How would a company record $1 of dividends or interest received from securities available-for-sale?

Dividends received are recorded through equity investments and interest payments received are reported through debt investments. A company should record $1 of dividends and interest received for available-for-sale securities the same way as a trading securities. A journal entry is shown on the next page for the proper recording of dividend and interest received for available-for-sale securities.

Dividends

Cash	1	
Dividend Revenue		1

Interest Received

Cash	1	
Interest Revenue		1

iii. If the market value of securities available-for-sale increased by $1 during the reporting period, what journal entry would the company record?

The company would need to record the fair value change. Available-for-sale fair value changes are recorded through equity rather than income. Please note, the only difference is the classification of the unrealized holding gain or loss.

Fair Value Adjustment	1	
Unrealized Holding Gain or Loss -- Equity		1

c. Consider securities held-to-maturity. Note that State Street calls these, "Investment securities held to maturity."

i. In general, what are these securities? Why are equity securities never classified as held-to-maturity?

Held-to-maturity securities are strictly debt securities that a company has the intent and the ability to hold until the security matures on a predetermined maturity date. Held-to-maturity nonequity securities do not record changes in fair value, instead, these securities are recorded using their amortized cost. This is because the company intends to keep the security until its maturity date, so there is no need to record the changes in fair value. Fair value is used when a company is hoping to sell securities for a profit and held-to-maturity securities.

ii. If the market value of securities held-to-maturity increased by $1 during the reporting period, what journal entry would the company record?

If the market value of securities held-to-maturity increased by $1 during the reporting period, the company would make no entry because changes in fair value are not recorded for held-to-maturity securities.

d. Consider the "Trading account assets" on State Street's balance sheet.

i. What is the balance in this account on December 31, 2012? What is the market value of these securities on that date?

The balance is $637 million. This number can be found on State Street's consolidated statement of condition where it is reported at fair value.

ii. Assume that the 2012 unadjusted trial balance for trading account assets was $552 million. What adjusting journal entry would State Street make to adjust this account to market value? Ignore any income tax effects for this part.

State Street needs to make an adjusting entry to record this account's market value. The adjusting entry for this adjustment is shown below.

Fair Value Adjustment	85	
Unrealized Holding Gair or Loss - Equity		85

e. Consider the balance sheet account "Investment securities held to maturity" and the related disclosures in Note 4.

i. What is the 2012 year-end balance in this account?

The 2012 year-end balance in this account is $11,379 million, which can also be found on State Street's consolidated statement of condition.

ii. What is the market value of State Street's investment securities held to maturity?

The market value is $11,661 million. This number comes from the consolidated statement of condition in the parenthesis after the investment securities held to maturity account.

iii. What is the amortized cost of these securities? What does "amortized cost" represent? How does amortized cost compare to the original cost of the securities?

iii. The amortized cost is $11,379 million. This cost results from the securities' fair value increase, which caused the held-to-maturity securities to decrease in value. Amortized cost represents the carrying value of the securities. Compared to the original cost, the amortized cost is lower than the original cost.

e. Consider the balance sheet account "Investment securities held to maturity" and the related disclosures in Note 4.

i. What is the 2012 year-end balance in this account? What does this represent?

The December 31, 2012 balance is $109,682 million. This balance sheet account represents the fair value of the available-for-sale securities at the end of the year.

ii. What is the amount of net *unrealized* gains or losses on the available-for-sale securities held by State Street at December 31, 2012?

The net amount is a net gain of $1,119 million. A net gain proves that these securities have increased in price for 2012.

iii. What was the amount of net *realized* gains (losses) from sales of available-for-sale securities for 2012? How would this amount impact State Street's statements of income and cash flows for 2012?

The amount is $55 million. Once an available-for-sale security is sold, it becomes a realized gain (loss), which is followed by the recognition of the gain (loss) from the sale. The gain realized by State Street will increase the company's cash, therefore increasing the cash flows, and income for 2012.

g. State Street's statement of cash flow for 2012 (not included) shows the following line items in the "Investing Activities" section relating to available-for-sale securities (in millions):

i. Show the journal entry State Street made to record the purchase of available-for-sale securities for 2012.

Investments Securities - AFS	60,812	
Cash		60,812

ii. Show the journal entry State Street made to record the sale of available-for-sale securities for 2012. Note 13 (not included) reports that the available-for-sale securities sold during 2012 had "*unrealized pre-tax gains of $67 million as of December 31, 2011." Hint:* be sure to remove the current book-value of these securities in your entry.

Cash	5,399	
Unrealized Holding Gain - Income	67	
Realized Gain on AFS		55
Investment in AFS, net		5,411

iii. Use the information in part g. *ii* to determine the original cost of the available-for-sale-securities sold during 2012.

We can determine the original cost of the available-for-sale securities sold during 2012. To find the original cost, take the cash proceeds less the gain realized, or $5,399 million less $55 million. The original cost for the available-for-sale securities sold during 2012 is $5,344 million.

Case 11: Deferred Income Taxes

Executive Summary

Beginning the business in 2005, Zealous About Great Gadgets, also known as ZAGG, started designing protective, plastic shields for wristwatches. Today, ZAGG is a market leader in mobile device accessories. The company creates a broad range of products for cellular devices, such as phone screens, mobile keyboards, cases, headphones, and portable chargers. In 2011, ZAGG acquired iFrogz, a company that manufacturers digital audio accessories, to expand their product lines and distribution. Throughout the case, you will develop a better understanding for deferred income tax accounting. It can be complex at times; however, this case will show how to determine a deferred tax liability rather than a deferred tax liability.

Analysis

This case taught me the difference between financial and tax accounting for income tax purposes. I also learned how to differentiate a deferred tax liability from a deferred tax asset. This case was helpful in determining which types of differences are permanent or temporary and how that difference is used to discover a deferred tax asset or liability. These differences result from a difference in book income and taxable income. I learned the statutory tax rate is a set percentage imposed by the law, whereas the effective tax rate can differ with each entity. This information allowed me to understand the purpose of deferred income taxes and how changes in the income tax rates can impact deferred income tax assets and liabilities. Overall, this case talks about a lot of in depth tax accounting, which I read about on many sites while researching the ASC 740.

a. Describe what is meant by the term book income? Which number in ZAGG's statement of operation captures this notion for fiscal 2012? Describe how a company's book income differs from its taxable income.

Book income refers to the pretax income that is shown on the financial statements. A company's book income is usually not the same as its taxable income. This difference occurs because of permanent and temporary differences. Permanent differences occur strictly in the tax year that the difference arises. However, temporary difference can take place over several years, ending after the difference is reversed. Book income can be found as the pretax income on the income statement. On ZAGG's statement of operations, the number representing the company's book value, or "Income before provision for income tax," is $23,898,000 for 2012.

b. In your own words, define the following terms:

i. Permanent tax differences (also provide an example)

A permanent tax difference is a business transaction that is reported differently for tax and financial reporting. This difference is an expense for GAAP and will never be eliminated. A company's goal is to have a permanent difference that results in complete elimination of a tax liability. Some permanent differences include a penalty or fine, meals and entertainment (although only meals with the 2017 tax code), and life insurance proceeds. For example, Bob is driving the company construction truck to the job site on Ole Miss's campus and gets a speeding ticket. The fine is deductible against book income; however, fines are nondeductible according to the IRC.

ii. Temporary tax difference (also provide an example).

A temporary tax difference generally arises from a revenue or expense item that is recognized in one period for taxes, but in a separate period for financial reporting. Temporary differences are basically timing difference that cause no long-term income differences and will eventually completely reverse the difference. Some examples of temporary differences are depreciation, accrued liabilities, and estimates. For example, Bob's construction site uses straight-line depreciation and has a bulldozer that cost $15,000. This asset has a useful life of three years and no salvage value. For tax purposes, Bob's company would report a $15,000 expense in year one. However, for financial reporting, Bob's company would record a $5,000 expense each year for three years.

iii. Statutory tax rate

The statutory tax rate is the tax imposed by law. This rate is a specific percentage.

iv. Effective tax rate

The effective tax rate is the percentage of our income we actually pay in taxes. This rate is always lower than the statutory rates because of deductions, credits, or standard deduction amounts for tax payers.

c. Explain in general terms why a company reports deferred income taxes as part of their total income tax expense. Why don't companies simply report their current tax bill as their income tax expense?

Financial reporting follows GAAP rules, whereas tax reporting must follow IRS rules. These two standards result in different income calculations causing the company's

income tax expenses to differ. That being said, the difference between a company's financial tax expense and their taxes payable amount will determine if the company has a deferred tax asset or liability. If in the future, a company pays more to the IRS than reported on their books, the company reports a deferred tax liability. If the company pays less tax in the future than is due now, the company reports a deferred tax asset, such as a prepaid expense. However, the firm would not claim a tax deduction until expenditures are actually used for warranty repairs, resulting in a deferred tax asset. Under GAAP, the ASC 740 provides specific accounting standards and disclosure guidance for deferred taxes and some exceptions for the recognition of temporary differences. The ASC 740 tax provisions has a primary objective to measure a deferred tax liability or asset using the enacted tax rate expected to apply to taxable income in the period in which the deferred tax liability or asset is expected to be realized. For financial purposes, deferred taxes must be traceable to the component of income that they relate to through note disclosure or on the face of the balance sheet. The ASC also has a two-step recognition and measurement approach to determine the amount of tax benefit that should be recognized in the financial statements. However, the main general understanding is that the ASC requires entities to report deferred tax assets and liabilities as current or noncurrent items on the balance sheet.

d. Explain what deferred income tax assets and deferred income tax liabilities represent. Give an example of a situation that would give rise to each of these items on the balance sheet.

Deferred income tax assets represent a future deductible amount that is reported on the balance sheet. It is usually when a business has overpaid taxes or paid taxes in advance and is usually a benefit for the company. This asset account helps reduce the company's future tax liability. An example of a deferred tax asset is when a firm reports bad debt expense in the year it credits the sale, but the company should not claim a tax deduction until it writes off the specific uncollectible amount. A deferred income tax liability represents a future taxable amount, which is also reported on the balance sheet, and is the result of temporary differences between book and taxable income and expense accounts.

A deferred tax liability results most commonly from different depreciation methods for financial reporting and the IRS rules. An example of a deferred tax liability is paying taxes. If a company makes an income of $10,000 that can be reported as profit this year or next year, the company would push a percentage of that profit into an investment rather than paying taxes on the complete $10,000. Although the total profit of $10,000 is reported in the company's financial statements, the balance sheet must show the percentage of the firm's future investment as a deferred tax liability.

e. Explain what a deferred income tax valuation allowance is and when it should be recorded.

This is when a company believes it will not be able to realize the benefits, or use the tax advantage, of its deferred tax assets. If a company expects a probability greater than 50 percent, the company must create a deferred income tax valuation allowance. This

allowance account is a contra balance sheet item that offsets all or a portion of deferred tax assets.

f. Consider the information disclosed in Note 8 – Income Taxes to answer the following questions:

i. Using the information in the first table in Note 8, show the journal entry that ZAGG recorded for the income tax provision in fiscal 2012?

Income Tax Expense	9,383	
Deferred Tax Asset, net	8,293	
Income Taxes Payable		17,686

ii. Using the information in the third table in Note 8, decompose the amount of "net deferred income taxes" recorded in income tax journal entry in part f. i. into its deferred income tax asset and deferred income tax liability components.

To determine the journal entry amount for deferred tax assets, take the total deferred tax asset end of year balance for 2012 less the balance from 2011, or $14,302 less $6,300. To determine the journal entry amount for deferred tax liabilities, take the total gross deferred tax liabilities previous year balance less the current year balance, or $1,086 less $794. Due to rounding, this number should be $292 but we adjust it to $291 to balance the following journal entry.

Income Tax Expense	9,383,000	
Deferred Tax Asset	8,002,000	
Deferred Tax Liability	291,000	
Income Taxes Payable		17,686,00

iii. The second table in Note 8 provides a reconciliation of income taxes computed using the federal statutory rate (35%) to income taxes computed using ZAGG's effective tax rate. Calculate ZAGG's 2012 effective tax rate using the information provided in their income statement. What accounts for the difference between the statutory rate and ZAGG's effective tax rate?

With this information, ZAGG's 2012 effective tax rate is 39.3 percent. The reason the statutory rate differs from ZAGG's effective tax rate is because of permanent and temporary differences, which are explained earlier throughout the case. There can also be differences in statutory and effective tax rates due to differing tax rates in different states.

iv. According to the third table in Note 8 – Income Taxes, ZAGG had a net deferred income tax asset balance of $13,508,000 at December 31, 2012. Explain where this amount appears on ZAGG's balance sheet.

This amount is split on ZAGG's balance sheet into current and noncurrent deferred income tax assets. The current portion is $6,912,000 and the noncurrent portion is $6,596,000.

Case 12: Revenue Recognition

Executive Summary

This case is about Apple Inc.'s revenue recognition tactics. Apple is a corporation that designs, manufactures, and markets personal computers, mobile communication devices, and portable digital music and video players. The company also sells a variety of software, services, peripherals, and networking solutions. Throughout this case, I will further your understanding of what revenues are and how revenues differ from gains. I will use the new revenue recognition standards from ASC 606 to further your understanding of the new standards. The basic revenue recognition principles, formed by GAAP, will be used to determine when revenue should be recognized and accounted for under specific conditions. No matter what principal rule is being used, it is important to note that revenue is recognized only when a specific event occurs and the amount of revenue is measurable.

Analysis

This case furthered my knowledge on the new ASC 606 revenue recognition standards and taught me how to locate a company's revenue recognition tactics that are presented on the company's 10-K. I also learned how to assess a company's revenue recognition policies, while differentiating recognition tactics for various types of sales. For this case specifically, I learned what four revenue recognition criteria Apple uses and how to determine the tactics by searching through the company's notes. This information will be explained further throughout the case. I also learned what multiple-element contracts are and how to account for the contracts. Following that, I explained what types of incentives companies offer their upper management to better the company.

a. In your own words, define "revenues." Explain how revenues are different from "gains."

In short, revenue is income from a company's primary operation or activity. However, revenue is separate from a gain. A gain is a profit from the sale of a secondary activity, or, often times, an asset. For example, if a company sells cookies, when a cookie is sold the company recognizes revenue from the sale. However, if that same company sells its oven for a profit, the company would recognize a gain on the sale. The company recognizes a gain because this is not their primary sales product, or cookies. For this case, revenue consists primarily from the sale of hardware, software, digital content and applications, peripherals, and service and support contracts.

b. Describe what it means for a business to "recognize" revenues. What specific accounts and financial statements are affected by the process of revenue recognition?

According to the new revenue recognition standard from ASC 606, to recognize revenue is to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods and services. For this case, the main ASC 606 standard to be followed is the *Revenue from Contracts with Customers*. The steps that summarize this standard state that, following a clearly identified contract, the company must identify its performance obligations, determine the transaction price, and then allocate that transaction price to the set performance obligation.

Finally, the company needs to recognize revenue as each performance obligation is satisfied. That being said, for a business to "recognize" revenues, that means the business must follow the steps stated above and recognize revenue when the performance obligation is satisfied, also known as using an accrual basis. The specific accounts that are affected by the process of revenue recognition are accounts receivable, cash and cash equivalents, sales revenue, and deferred revenue. The sales revenue account affects the income statement when revenue is recognized. All other accounts will affect Apple's balance sheet.

c. Refer to the Revenue Recognition discussion in Note 1. In general, when does Apple recognize revenue? Explain Apple's four revenue recognition criteria. Do they appear to be aligned with the revenue recognition criteria you described in part b, above?

Apple's most recent 10-K, which can be found on Apple's website under *SEC Filings*, states that Apple must adopt the new ASU revenue standards. Apple states in the 10-K that their company will begin to use the new standards in the first quarter of 2019 utilizing the full retrospective transition method. The 10-K also discloses that the new standards are not expected to have a material impact on the amount and timing of revenue recognized in Apple's consolidated financial statements. That being said, Apple recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable, and collection is probable. For most of Apple's product sales, the

recognition occurs at the time the product is shipped. In general, these revenue recognition tactics do fully align with the revenue recognition criteria described above in part b. However, some differences could arise within the company due to industry specific software accounting for certain sales or multi-element arrangements.

d. What are multiple-element contracts and why do they pose revenue recognition problems for companies?

Multiple-element contracts occur when a company provides multiple products or services to a customer as part of a single arrangement, or a series of related arrangements. For Apple, these contracts consist of tangible products with specific software elements that are essential to the product's functionality. After a contract is formed, Apple, then, allocates the revenue to all deliverables based on their relative selling price. For example, when an Apple iPhone is purchased, a contract is formed between Apple and the customer. The company already has an estimated selling price for the bundle of software, hardware, and other deliverable items associated with the phone like set-up, maintenance, or software update costs.

The first deliverable item for this contract is the hardware and software essential to the functionality of the phone. Then, the second deliverable is the embedded right of the customer to their new iPhone. Finally, the other deliverable items will be paid for up front or monthly, depending on the customer's contract. Some deliverable items may even be free such as, periodic updates for the phone.

Apple will allocate the revenue between these deliverable items based on the pre-determined estimated selling price. Although, these types of contracts often pose revenue recognition problems for companies because of the estimated selling price for the bundle of tangible products.

Apple would not sell many software upgrades on a standalone basis, which is why the updates are considered free. Because these items are being sold together through a binding contract, Apple can charge a higher price for all deliverable items. These estimates can be hard to determine using previous data and difficult to allocate separately for companies.

e. In general, what incentives do managers have to make self-serving revenue recognition choices?

Managers are often provided with incentives to make self-servicing revenue recognition choices. A company will provide managers with incentives to improve revenues, earnings per share, or gains, or to lower company expenses and loses. These incentives are often compensated through bonuses, raises, or stock-option plans provided to managers for reaching specified, predetermined goals established by their employer.

f. Refer to Apple's revenue recognition footnote. In particular, when does the company recognize revenue for the following types of sales?

i. iTunes songs sold online.

iTunes songs sold online – According to the ASC 606, Apple should recognize its commission, which is seven percent of the revenue, at the time of sale. This is due to the fact that the customer purchasing the song has agreed to pay and now receives the benefits of being able to listen to the song at any point in time. Apple only gets a percentage of the profit because the artist, or third-party, receives the majority of the sales revenue.

ii. Mac-branded accessories such as headphones, power adaptors, and backpacks sold in the Apple stores. What if the accessories are sold online?

Mac-branded accessories such as headphones, power adaptors, and backpacks sold in the apple store – Mac-branded accessories are one of Apple's primary sales products that Apple delivers directly to the customer. Therefore, Apple should recognize the sales revenue at the time of the sale because the sale has been transferred to the customer directly, as the ASC requires. As mentioned in part b, if Apple sells Mac-branded accessories online, the company should recognize revenue once the delivery has occurred.

iii. iPods sold to a third-party reseller in India

iPods sold to a third-party reseller in India – Apple should recognize revenue when the third-party reseller has control of the iPods. The ASC 606 standard defines five indicators of control: the entity has a present right

to payment, legal title to the asset, physical possession of the asset, significant risks and rewards of ownership of the asset, and, lastly, has accepted the asset. If any of the criteria above is present, the third-party has control over the iPods and Apple should recognize the sales revenue.

iv. Revenue from gift cards

Revenue from gift cards – When the gift card is originally purchased, Apple records the transaction with a prepaid liability account. According to ASC 606, Apple should not recognize revenue until the gift card is redeemed. Also, if the gift card is never redeemed, companies are expected to exercise judgement estimating the redemption patterns and determining the expected breakage rate.

Works Cited

Statistical Analysis System. "New SAS Book Empowers Government to Use Data and Analytics for Good." *New SAS Book Empowers Government to Use Data and Analytics for Good | SAS*, Trent Smith, 13 June 2017, www.sas.com/en_us/news/press-releases/2017/june/book-empowers-government-data-for-good.html.

SAS Institute. "SAS Collaborative Planning Workbench." *SAS Collaborative Planning Workbench | SAS*, 2017, https://www.sas.com/en_us/software/collaborative-planning-workbench.html

SAS Institute. "SAS Fraud Framework." *SAS Fraud Framework | SAS*, 2017, https://www.sas.com/en_us/software/fraud-framework.html

SAS Institute. "SAS Anti-Money Laundering." *SAS Anti-Money Laundering | SAS*, 2017, https://www.sas.com/en_us/software/anti-money-laundering.html

SAS Institute. "SAS Understand the Risk for Each of Your Pension Fund Investments." *SAS Understand the Risk for Each of Your Pension Fund Investments | SAS*, 2017, https://www.sas.com/content/dam/SAS/en_us/doc/other1/sas-retirement-plan-summary-plan-description.pdf

SAS Institute. "Manage Municipal Budgets with Greater Transparency Efficiency." *SAS Manage Municipal Budgets with Greater Transparency Efficiency| SAS*, 2017, https://www.sas.com/en_us/customers/city-of-wiesbaden.html

KPMG. "SAS and KPMG Launch First Cloud-Based IFRS9." *KPMG*, 28 Aug. 2017, home.kpmg.com/sg/en/home/media/press-releases/2017/08/sas-and-kpmg-launch-first-cloud-based-ifrs9-and-stress-testing-regtech-solutions-in-asia.html.

The Honor Code:

"On my honor, I pledge that I have neither given, received, nor witnessed any unauthorized help on this assignment."

Signed,

Allie Marquart